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Effects of a screening instrument and parent handouts on physicians recognition and intervention of childrens behavioral and emotional problems

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EFFECTS OF A SCREENING INSTRUMENT AND PARENT HANDOUTS ON PHYSICIANS' RECOGNITION AND INTERVENTION OF CHILDREN'S BEHAVIORAL AND EMOTIONAL PROBLEMS

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ABSTRACT

This study examined the effects of a screening instrument and parent handouts on pediatric residents' recognition and intervention of children's behavioral and emotional problems. Four pediatric residents and 52 parent-child dyads attending a pediatric primary care clinic participated in the study. A multiple baseline design across residents was used. The effects of the interventions were assessed by measuring ten target behaviors of the pediatric residents. After being trained to use the screening instrument, residents' increased the number and variety of questions they asked regarding behavioral and emotional issues. Attempts at intervention by the residents showed small but reliable increases when handouts on behavior management procedures were made available. The use of a screening instrument in pediatric primary care shows promise in increasing discussions regarding children's behavioral and emotional issues between residents and parents. Further research is needed examining strategies to improve pediatric residents' attempts at intervention for behavioral and emotional problems in children.

INTRODUCTION

In 1982, the American Academy of Pediatrics formally recognized that it is the responsibility of pediatricians to identify and treat children's behavioral and emotional problems. Behavioral and emotional problems in children, first recognized as the "hidden morbidity" in primary care pediatrics more than 20 years ago (Kelleher & Wolraich, 1995; Haggerty, Roghmann, & Bless, 1975), is now the leading cause of disability in children and adolescents (Costello & Pantino, 1987; Costello, Costello, Edelbrock, Burns, Dulcan, Brent, et al., 1988; Costello, Edelbrock, & Costello, 1988; Kelleher & Wolraich, 1995). Estimates of child behavioral problems in pediatric settings range from 11 to 22% (Costello, Burns, Costello, Edelbrock, Dulcan, & Brent, 1988; Costello, et al., 1988), whereas rates of physician recognition of these problems range from 5 to 9% (Costello, et al., 1988; Lavigne, Binns, Christoffel, Rosenbaum, Arend, et al., 1993). Most studies compare a physician's diagnosis (via brief interview) to a psychologist's diagnosis (via standardized rating scales or semi-structured interviews). From these studies it is clear that physicians are less likely to recognize children's behavioral/emotional problems when they do not have access to the same questionnaire data. Few studies have examined *pediatricians'* use of brief screening instruments to help identify children with behavioral and emotional problems. Furthermore, many pediatricians recognize that they do not address behavioral and emotional problems as frequently as warranted

(Perrin, 1999). Possible reasons for the reluctance of physicians to address these problems include time constraints, lack of expertise needed to identify behavioral and emotional problems, lack of knowledge concerning treatments, and inability to make appropriate referrals owing to managed care (Sharp, Pantell, Murphy, & Lewis, 1992; Costello, 1986). The literature clearly shows that behavioral/emotional disorders are a prevalent, largely unrecognized problem in pediatric primary care.

Jellinek and Murphy (1990) suggested that use of behavioral screening instruments might increase physicians' attempts at identifying behavioral and emotional problems, partly because parents will feel as though the physician is interested in these concerns and will be more likely to mention problems during the office visits. In fact, researchers have shown that many parents do not initiate discussions of child behavioral concerns because they believe their physician would not be interested (Hickson, Altemeier, & O'Connor, 1983). Furthermore, physicians may be more likely to initiate discussions of behavioral problems when a screening instrument is used because specific information will be available prior to entering the exam room that can serve as a starting point for discussion (Stancin & Palermo, 1997).

The purpose of this study is to evaluate the effects of a brief screening instrument and parent handouts on pediatricians' attempts at recognizing and intervening on behavioral and emotional problems in school-age children. We hypothesize that the use of a screening

instrument will increase physicians' attempts at recognizing behavioral/emotional problems, and will lead to increased interaction between the physician and parent regarding behavioral/emotional concerns. Furthermore, we hypothesize that the addition of parent handouts available for presentation to parents will increase physicians' discussion of specific treatment strategies.

The literature review will focus on four areas. First, prevalence of child psychopathology in pediatric primary care settings will be presented, with a focus on school-age children. Second, current methods used by pediatricians for recognizing child psychopathology will be discussed. Third, the apparent discrepancy between actual rates of psychopathology in pediatric settings and rates identified by pediatricians will be explored. Fourth, behavioral screening methods of child psychopathology in pediatric settings using questionnaires will be presented, with an emphasis on the lack of research concerning pediatricians' use of these instruments in assessing child psychopathology.

Child Psychopathology in Pediatric Settings

Research has shown that many children seen in pediatric settings exhibit some form of psychopathology. For example, Costello and Edelbrock (1985) examined the prevalence of child psychiatric problems in a pediatric setting using the Diagnostic Interview Schedule for Children – parent version (DISC-P) and the Child Behavior Checklist

(CBCL). In this study, 40 parent-child dyads were approached to participate in interviews regarding their children's behavior. Trained interviewers visited the parent and child within 1 week of the office visit. Parents completed the CBCL and were interviewed using the DISC-P. Of the 40 children who participated in the study with their parents, 10% were identified as having significant psychiatric problems using the DISC-P. Diagnoses included enuresis (n=1) and ADHD (n=3) when the DISC-P was used. Furthermore, 3 of these 4 children were identified as "behaviorally deviant" using the CBCL.

In a follow-up study, Costello and colleagues (1988) examined the prevalence of behavioral and emotional problems in children age 7 to 11 seen in primary care. In this study, parents completed the Child Behavior Checklist (CBCL) about their children. Of the 789 children participating, 24.7% received CBCL scores placing them in the clinical range. Follow-up assessment of the children who scored in the clinical range involved a detailed psychiatric interview with parents using the Diagnostic Interview Schedule for Children (DISC-C and DISC-P). Results indicated that approximately 22% of the children who scored in the clinical range on the CBCL warranted a DSM-III diagnosis when both child and parent interviews were used. The most frequently diagnosed disorders were simple phobia, oppositional defiant disorder, overanxious disorder, enuresis, and separation anxiety disorder. However, when parent interviews only were the criterion used to determine

emotional/behavioral problems, only 11% of the children warranted diagnosis. Furthermore, parents were twice as likely as children to endorse symptoms of oppositional defiant disorder, whereas children were more likely to report symptoms of separation anxiety, phobia, and depression.

Methods Used by Physicians to Identify Child Psychopathology

One issue that needs to be addressed is the method by which children are identified as having a psychiatric disturbance. The most common method used by psychologists to determine child behavioral or emotional problems is parent-completed rating scales followed by a comprehensive structured interview. Although these methods consistently have demonstrated adequate reliability and validity in differentiating distressed and non-distressed children, these methods are not used routinely by physicians for determining which children need mental health services. Pediatricians typically use unstructured interviews during routine visits in an attempt to identify behavioral problems. For instance, Costello, et al., (1988) investigated pediatricians' recognition of behavioral and emotional problems in 789 children attending a pediatric primary care clinic. Pediatricians were instructed to conduct their normal activities, including assessing children for potential mental health problems (American Academy of Pediatrics, 1982). Pediatricians interviewed the parent and child to determine whether behavior or emotional problems existed, but did not have access

to rating scale data provided by the parent or obtained from structured diagnostic interviews conducted by psychiatric social workers. Pediatricians used their own "clinical judgment" in determining whether a child had a behavioral or emotional disturbance. Pediatricians' recognition of psychiatric disturbance was compared to a structured interview conducted by experienced psychiatric social workers using the DISC-P. The results indicated that pediatricians diagnosed approximately 6% of the children as having significant psychiatric impairment, whereas diagnoses made using the DISC-P identified 12% of the children as impaired. Furthermore, physicians demonstrated high specificity (i.e., 84% of the children they diagnosed as "non-disturbed" in fact had no disturbance), but low sensitivity (i.e., they only identified 17% of children who experienced a psychiatric disturbance). Based on these findings, Costello and her colleagues determined that psychiatric disturbance in pediatric primary care was a "new hidden morbidity," due to the fact that 83% of impaired children in the study were not identified by their pediatrician.

Lavigne et al., (1993) compared physicians' diagnoses to evaluations conducted by clinical psychologists in 495 children age 2 to 5. In their study, physicians were instructed to conduct their practice in a normal fashion, followed by completing a child report form in which they listed whether they believed the child had behavioral or emotional problems. Psychologists determined psychiatric impairment through the

use of a behavioral questionnaire, maternal interview, play observation, and developmental testing. Results indicated that physicians identified 9% of the children as behaviorally or emotionally disturbed, whereas psychologists identified 13% of the children as in need of mental health services. Once again, physicians tended toward high specificity and low sensitivity (93% of the children diagnosed as "non-disturbed" by the physician actually did not have mental health problems, whereas the physician correctly diagnosed only 21% of children with significant impairment). Furthermore, at least 52% of children diagnosed with behavioral or emotional problems had never received counseling, medication, or mental health referral by the physician.

Merritt, et al., (1993) compared pediatrician diagnoses to independent evaluations by a pediatric fellow or psychology intern. After the child's physical examination, physicians were instructed to complete a brief inventory regarding the findings including whether there was evidence of a behavior problem warranting attention and follow-up. The physicians' findings were compared to data obtained from a semi-structured child interview, the Child Assessment Schedule (CAS), and parallel parent form (P-CAS). The items from the CAS were then matched to specific DSM-III diagnoses. When this criterion was used, 42% of the total sample (n=41) were diagnosed with a DSM-III disorder, versus 24% when identified by physician. However, a mother-completed questionnaire, the Missouri Children's Behavior Checklist (MCBC)

identified 27% of the children as exhibiting behavioral/emotional problems. When compared to prevalence rates in the literature (11-20%), the rates of child psychopathology in this study were significantly higher, whether diagnosed by physician, interview, or questionnaire. The authors suggested that the discrepancy might be due to clinic characteristics or sampling effects.

Reasons for Discrepancy

One issue that needs to be addressed is the reason for the discrepancy between independent psychological evaluations and pediatricians' recognition of behavioral/emotional disturbances in children. Several reasons have been suggested, including physicians' lack of expertise, time, and knowledge concerning diagnosis/treatment (Costello, 1986), parental reluctance to initiate discussions of child behavioral/emotional problems (Hickson, Altemeier, & O'Connor, 1983), barriers that make follow-up difficult (Hickson, et al., 1983), and the use of a taxonomy that is inappropriate to primary care (Horwitz, Leaf, Leventhal, Forsyth, & Speechley, 1992).

The first issue, lack of expertise, time, and knowledge, has been indirectly addressed through the current status of the literature. All of the studies conducted thus far have compared psychological evaluations using multiple psychometric instruments administered by qualified mental health experts to the results of time-constrained examinations by physicians, whose primary responsibility is addressing the medical needs

of the child. Given these circumstances, it is not difficult to identify one potential reason why physicians under-diagnose child behavioral/emotional problems.

The second issue, reluctance of parents to raise child behavioral/emotional concerns, does not completely explain the under-identification of child psychiatric disturbance by pediatricians in light of recent research suggesting that parents do raise behavioral/emotional concerns during pediatrician visits. Early research suggested that although parents were willing to discuss non-medical issues with pediatricians, they rarely initiated these discussions(Goldberg, Reiger, McInerny, Pless, & Roghmann, 1979; Hickson, Altemeier, & O'Connor, 1983). For instance, Hickson, et al., (1983) reported that although 70% of parents visiting pediatricians had primary concerns regarding behavioral or emotional issues, only 28% of these parents voiced their concerns to the physician. Later research, however, demonstrated that parents are willing to discuss child behavioral/emotional issues. In fact, Sharp, et al., (1992) demonstrated that for 88% of their sample, the physician created opportunities to discuss behavioral and emotional concerns or the parent spontaneously mentioned these issues. Issues raised included behavior problems (47%), insecurity (13%), family, sibling, or social problems (13%), learning difficulties (10%), somatization (7%), and other (10%). Although behavioral or emotional problems were discussed in over 1/2 of the visits, physicians' responses were

inadequate. Only 40% of physicians' responses qualified as *active* responses (i.e., offered reassurance, provided parenting suggestions, gave medical advice/action, or a combination of latter two). Seventeen percent of the physicians responded by ignoring the concern, and 43% responded by asking follow-up questions, but offering no advice, reassurance, or guidance. In another study, Starfield and Borkowf (1969) asked mothers to list their main concerns about their children prior to a pediatric visit, 31% of which indicated behavioral concerns. Pediatricians were given written copies of these concerns prior to entering the exam room. In a follow-up chart review it was discovered that only 42% of the behavioral concerns were recorded in the chart. The results of these studies suggest that parents are willing to discuss behavioral and emotional concerns with their child's pediatrician, but that many times pediatricians do not provide adequate responses.

The third issue, barriers that make follow-up difficult, is a legitimate and well-documented one, primarily because physicians have a limit on the amount of time they can spend with patients, receive compensation for a limited number of visits, and have restrictions placed on referral practices by HMO's (Drotar, 1999). For example, one study reported that pediatricians spend an average of 11 minutes in the exam room with a patient, an amount of time that does not allow for comprehensive diagnostic interviews (Chang, Warner, & Weissman, 1988). Once again, however, this does not completely explain the lack of

recognition and intervention of child psychiatric distress by pediatricians. Many physicians are willing to discuss child behavioral/emotional concerns but lack the resources to identify children with problems, or lack the necessary skills to provide intervention.

Horwitz and her colleagues (1992) have addressed the fourth issue, use of an inappropriate taxonomy for primary care, in a study examining psychological problems of children ages 4-8 in a pediatric setting. These researchers developed a 13-category checklist of psychosocial and developmental problems based on World Health Organization-sponsored primary care, child-oriented classification system. The 13 categories used were problems with physical growth and development, sleep, motor, cognitive/language, school, behavior, psychophysiological, feelings, thoughts, peer activity, parent-child, social, and family. When this taxonomy was used instead of the standard psychiatric nomenclature, pediatricians identified 27% of children as exhibiting behavioral/emotional or developmental problems, a prevalence rate much higher than that identified by other studies. The researchers suggested that use of a classification system that was more familiar and appropriate to a primary care setting contributed to the increased identification. Furthermore, some researchers have developed a DSM-based nosology specifically designed for use in a primary care setting.

Because the identification and treatment of child behavioral/emotional problems is recognized as a responsibility of pediatricians (American Academy of Pediatrics, 1982) it is crucial that procedures are developed that address the barriers to the recognition and intervention of these problems. Rates of physician recognition and intervention cannot be expected to increase unless these barriers are removed. Physicians must feel as though they have the time, skills, and resources necessary to address behavioral issues in a competent fashion. They must not be expected to make DSM-IV diagnoses with the same competency as psychologists or psychiatrists. In fact, it is probably counterproductive to expect physicians to make psychiatric diagnoses at all, especially considering the brevity of their training and experience in such matters. However, it is important that physicians are capable of recognizing a child in distress, and be able to intervene at some level, through advice, guidance, reassurance, or referral. Screening instruments used by physicians should be easy to administer and score, easy to interpret, not require diagnostic decisions, yet still provide sufficient information to identify distressed children. As noted by Kemper and Kelleher (1996), "If screening is to be successful, the burden of screening must be minimal to clinicians, and treatment options must be clear and available."

Behavioral Screening Procedures

There are two types of screening procedures used within a pediatric setting: clinical interviews and behavioral screening measures The most frequently used is the clinical interview. In this situation the pediatrician asks questions regarding key areas of psychosocial functioning, and then uses clinical judgement to determine if the child has significant behavior problems in need of intervention. Many pediatricians question the predictive power of clinical interviews in accurately identifying children in need of mental health services, and worry that children will be overidentified if this strategy is used (Costello, Costello, Edelbrock, Burns, Dulcan, et al., 1988). However, research suggests that when parents express concern about a problem, the likelihood of the child's meeting diagnostic criteria for one or more psychological disorders is significantly higher than if no concern is expressed, regardless of whether the informant of the structured interview is the parent or the child. Hack and Jellinek (1998) have compiled a list of key questions that are likely to identify significant psychosocial dysfunction in an attempt to improve pediatricians' clinical interviewing skills regarding behavioral issues.

The second type of screening procedure used within a pediatric setting is psychosocial screening measures. In general, these measures are used by pediatric psychologists to determine behavioral and emotional dysfunction. They are typically not used by pediatricians, who

primarily rely on interviews to determine the level of a child's psychosocial functioning. Screening measures may assess for child functioning, parent functioning, or family functioning. The most frequently used within pediatric settings are parent-completed measures regarding child functioning. Some examples include the CBCL, the Eyberg Child Behavior Inventory (ECBI), the Conners Parent Rating Scale-Revised (CPRS-R) and the Pediatric Symptom Checklist (PSC). Only two of these measures have been routinely used in pediatric settings, the CBCL and PSC. As mentioned previously, studies using these measures in combination with follow-up structured interviews have revealed that the prevalence of psychopathology within pediatric settings falls between 11 and 20%. Both of these measures have their advantages and disadvantages. One advantage of the CBCL is that it is an empirically-derived, standardized measure designed to assess global psychosocial functioning of children 4 to 18 years old. Raw scores are translated into T scores resulting in interpretative information for 3 subscales (internalizing problems, externalizing problems, and total problems). A 90th percentile cutoff point for Total Problems has been shown to correctly identify 83% of children as disturbed or nondisturbed (Achenbach & Edelbrock, 1981). Other research has shown that the CBCL is highly correlated with structured diagnostic interviews (Costello, Burns, Costello, Edelbrock, Dulcan, et al., 1988). The CBCL has been used to validate other measures as well, including the PSC and the ECBI.

Few researchers question the psychometric integrity of the CBCL. However, many authors have questioned the routine use of the CBCL for screening in pediatric settings because of the time required for administration and scoring. Furthermore, interpreting the results of the CBCL requires a sophisticated understanding of standard scores and profile analyses (Achenbach, 1991).

On the other hand, the PSC was developed specifically for screening behavior and emotional problems within a pediatric setting. It is a very short instrument (35 items) which takes approximately 5 minutes to complete and less than 2 minutes to score, which means that it can fit easily into most office practices. The PSC provides a single cutoff score, a concept that is easily interpreted and familiar to physicians. Previous research with the PSC has demonstrated that an overall cutoff score of 28 has consistently differentiated between children with behavioral and/or emotional problems and normal children. For instance, Jellinek and colleagues (1988) compared the PSC to comprehensive assessments of the functioning of 6 to 12 year old children seen in pediatric settings. Forty-eight children in this study (28 screened positively by the PSC and 20 screened negatively). PSC scores were compared to blind ratings of functioning by psychologists or psychiatrists using the Children's Global Assessment Scale (CGAS). Results demonstrated that, when compared to psychologist/psychiatrist

CGAS ratings, the PSC with a cutoff score of 28 has a sensitivity of .95 and a specificity of .68. Although a false-positive rate of almost 1/3 seems high, it is an acceptable rate given the fact that the PSC was designed as a screening instrument only, and that follow-up assessments/interviews should identify children who have been falsely screened positive. Furthermore, Jellinek, et. al., (1988) showed that although increasing the PSC cutoff score significantly lowers the false-positive rate, the false-negative rate increases to an unacceptable level of 55%. Test-retest reliability (r=0.86) and inter-rater reliability (r=0.89) were acceptable. Other researchers have demonstrated that the PSC is an effective screening instrument for use in the 13-16 age range (Murphy & Jellinek, 1985; Murphy, Jellinek, & Milinsky, 1989).

There is only one study that examines the effects of a screening instrument on *pediatricians'* decisions regarding recognition and management of child behavior problems. Murphy, et al., (1992) examined the routine implementation of the PSC in an outpatient pediatric practice. This study was conducted in an inner-city health clinic that served primarily low SES African-Americans. There were four phases of the study. In the first phase, the researchers collected baseline data targeting the pre-intervention referral rate for mental health services. In the second phase, use of the PSC was implemented in which nurses approached patients in the waiting room and asked them to complete the PSC regarding their child. Pediatricians were responsible

for scoring and interpreting the results. There was no monitoring of these procedures by the research team. In the third phase, active monitoring of the PSC administration by the research team was added to the procedure in order to maximize consistent screening implementation. During this phase, a research assistant was responsible for reminding nurses to give the PSC to each parent. The research assistant was also responsible for retrieving the PSC from the parent and placing it in the medical record. In the fourth phase, the research team no longer visited the clinic, the use of the PSC was no longer clinic policy and its use was discontinued. The results of this study revealed a significant effect on mental health referral practices of pediatricians when the PSC procedure was implemented. Specifically, referral rates for each of the four phases were 1.5%, 12%, 10%, and 1.9%, respectively. These results suggest that use of the PSC by pediatricians can increase mental health referral rates to a percentage that more closely matches the number of distressed children within a primary care setting. The authors suggested that the reason the referral rates were similar for the second and third phase was because the pediatricians were more aware of psychosocial issues, regardless of whether screening was systematically implemented.

Based on the Murphy, et al., (1992) study there is preliminary evidence that implementing systematic behavioral screening procedures within a pediatric setting increases pediatricians' intervention via mental health referrals (Murphy, Arnett, Bishop, Jellinek, & Reede, 1992). It is

unclear, however, whether systematic screening procedures will increase other forms of intervention, such as advice, guidance, reassurance, or prescriptions for psychotropic medications. Studies examining strategies to increase other forms of intervention by pediatricians are needed, especially considering the large database that indicates most children will receive mental health services through their pediatrician. For instance, Cassidy and Jellinek (1998) state that "as many as half of all pediatric office visits reflect behavioral, psychosocial, and educational concerns, and most children in the United States with a psychiatric disorder receive care only from their pediatricians, making primary care clinics the "de facto mental health service" for most children in need of such care." Furthermore, research has shown that many physicians do not intervene even when they recognize that there is a problem. Sharp, Pantell, Murphy and Lewis (1992) found that most physicians either ignore comments made by parents concerning behavioral issues, or ask follow-up questions without providing any advice or suggestions. Other researchers have shown that physicians are less likely to intervene for problems in which they feel less competent and clear treatment strategies are not available (Costello, 1986).

To date, there has been only one study examining strategies to increase physicians' attempts at recognizing and intervening on children's behavioral and emotional problems (i.e., Murphy, et al., 1992). However, this study focused solely on examining physicians' rates of

mental health referrals. This study did not examine physician behavior in the exam room or physician attempts at intervention other than mental health referrals.

A necessary first step in improving physicians' ability to identify and treat children's behavioral and emotional problems is changing physicians' behavior in the exam room regarding these issues. Previous research shows that physicians' do not attempt to identify children with behavioral or emotional problems as frequently as warranted. Furthermore, even when a child is identified as psychological distressed, physicians rarely attempt to intervene. Research aimed at increasing discussions regarding behavioral/emotional issues and attempts at intervention are crucial. Once effective strategies for increasing physicians' attempts at recognition and intervention have been identified, research examining physicians' accuracy in identification of behavioral/emotional problems will be warranted. Currently, it should not be surprising that physicians do not identify children in psychological distress at the same rates as mental health professionals considering the evidence that physicians rarely address these issues in the exam room.

The purpose of this study was to evaluate the effects of a brief screening instrument and parent handouts on pediatric residents' recognition and intervention of behavioral/emotional problems in school-age children. We hypothesized that the use of a screening instrument

(i.e., the Pediatric Symptom Checklist; PSC) would increase pediatric residents' recognition of behavioral and emotional problems in children and would increase the interaction between the resident and parent regarding behavioral/emotional concerns. However, it was uncertain whether the use of the PSC would increase *intervention* on the part of the resident, because the instrument itself does not provide specific recommendations concerning treatment. For this reason, parent handouts addressing specific behavioral and/or emotional issues were made available to the resident as an adjunct to traditional treatment options (e.g., mental health referral).

The specific hypotheses were that the use of the PSC would 1) increase the amount of time that the resident spent discussing behavioral or emotional issues (as measured by percentage of intervals spent discussing behavioral/emotional issues), 2) increase the total number of questions residents asked about behavioral or emotional issues, and 3) increase the <u>variety</u> of questions residents asked about behavioral or emotional issues (i.e., increase the number of resident-initiated topics about different behavioral issues). Furthermore, it was hypothesized that the availability of parent handouts designed to address specific behavioral or emotional issues would result in increased intervention on the part of the resident. More specifically, the fourth hypothesis was that the availability of parent handouts would increase the overall total (combined) number of the following intervention

strategies: 1) giving the parent advice, 2) reassuring the parent of developmentally normal behaviors, 3) offering educational information, 4) offering a behavioral handout, 5) providing a mental health referral, and 6) prescribing a psychotropic medication.

A secondary purpose of this study was to assess patient satisfaction with the clinic visit as it related to the use of the PSC and parent handouts. No *a priori* hypothesis was established owing to the exploratory nature of the analysis.

METHODS

Design

A multiple baseline design was used to examine the effects of a screening instrument (PSC Condition) and parent handouts (PSC + H Condition) on residents' questions and interventions regarding behavioral or emotional issues. Two pairs of residents (J.G. and B.S., and K.E. and G.F) participated in the study. A detailed description of the procedures and specific design elements is provided below in the Procedures section.

Participants

Participants included 4 pediatric residents and 52 parent-child dyads attending pediatric clinic visits. Residents were approached by the investigator and asked to participate in the study. None of the residents declined to participate. All four residents were males in their first year of residency. All four residents were participating in the pediatric rotation for the first time. One of the residents (K.E.) had received a minor in psychology as an undergraduate and a second resident (B.S.) was 4 credits shy of a psychology minor. Residents J.G. and B.S. attended the pediatric rotation during August and K.E. and G.F. attended during September. All four of the residents were given the first week of the 4-week rotation to acclimate to the clinic routine before they were invited to participate in the study.

Parent-child dyads participating in the study met the following inclusion criteria: 1) children were between the ages of 6 and 16, and 2)

the children were attending pediatric well-child visits or visits for minor, acute illnesses (e.g., otitis media). Exclusion criteria included any child who was attending the pediatric clinic for behavior problems or a referral to ADHD or Behavior Clinic. Of the 56 parent-child dyads eligible to participate in the study during the data collection period, 52 consented to participate. Of the four parent-child dyads declining to participate, two refused because they did not want to be audiotaped, one refused because the nature of the visit was private, and one refused to participate because of time constraints. The mean age of the children participating in the study was 10.37 (SD=3.53). Eighteen of the participants were male and 34 were female. Forty-eight of the participants were African-American and four were Caucasian. The clinic population consists primarily of low SES families.

Response Definitions

Ten target behaviors were identified by a review of the relevant literature. The ten behaviors (in italics) were categorized as either 1) Total Questions (included *initial questions, follow-up questions,* and *comments*), or 2) Interventions (included *offered the parent advice, offered the parent reassurance, offered the parent educational information, offered the parent a handout, offered a mental health referral,* or *offered a prescription*). The tenth behavior was not categorized as either a Total Question or an Intervention (*ignored the parent's question or comment*) but was included in the list of possible responses based on a review of

the literature. Appendix A provides the coding sheets that were used to record resident behavior and Appendix B provides definitions and examples of each of the ten target behaviors.

Materials

Pediatric Symptom Checklist. The Pediatric Symptom Checklist (PSC) (Appendix C) is a questionnaire designed to evaluate behavioral and emotional functioning of children ages 6-16 (Jellinek, Murphy, Robinson, Feins, Lamb, & Fenton, 1988; Murphy & Jellinek, 1985; Murphy, Jellinek, & Milinsky, 1989). It is a 35-item parent-completed questionnaire that takes approximately 5 minutes to complete, and includes an evaluation of psychosocial areas that are frequently problematic for school-age children, including behavior problems in school and at home, emotional problems, and problems with peers. The PSC items are ranked on a 3-point Likert-type scale, with never, sometimes and often as response options. The PSC is not a diagnostic instrument, but was designed to screen for potential problems in a variety of areas that may warrant follow-up assessment and intervention. Previous research with the PSC has demonstrated that an overall cutoff score of 28 has consistently differentiated between children with behavioral and/or emotional problems and normal children, with a sensitivity of .95, a specificity of .68, and a kappa of .60 (Jellinek, et al., 1988; Murphy, Jellinek, Lamb, & Fenton, 1986).

Parent Satisfaction Questionnaire. The Parent Satisfaction Questionnaire (PSQ) (Appendix D) is a 20-item measure of parents' level of satisfaction with their child's health care (Finney, Brophy, Friman, Golden, Richman, & Ross, 1990). Parents rate each item on a five-point Likert-type scale ranging from "strongly disagree" to "strongly agree." The range of possible scores is 20 (extreme dissatisfaction) to 100 (extreme satisfaction).

Parent Handouts. Parent handouts (Appendix E) were developed for distribution by pediatric residents during office visits. Five separate handouts were developed describing common behavioral and/or emotional problems exhibited by children and corresponding parental interventions. For example, if the parent endorsed many PSC items relating to school problems, then a handout detailing the use of school-home notes might be given to the parent by the pediatric resident. Handouts were designed to match symptoms of the PSC as closely as possible. PSC symptoms were divided into clusters of behaviors that commonly occur together (Appendix F), resulting in the 5 separate parent handouts targeting attention/hyperactivity problems, oppositional/defiant problems, anxiety problems, mood problems, and school problems.

Patient Demographics. A form was developed for the purposes of this study that records patient and parent demographic information (Appendix G).

Transcription Sheet. A transcription sheet was developed that allowed transcription of residents' and parents' verbalizations regarding behavioral/emotional issues in the exam room (see Appendix H). Residents' and parents' verbalizations regarding behavioral/emotional issues were transcribed verbatim from the audiotapes.

Content Checklist. A checklist was developed that contains items from the PSC that may be brought up in the exam room by either the resident or the parent (see Appendix I). The checklist includes all items from the PSC as well as other topics of inquiry that may be brought up regarding a child's behavior and emotions. The checklist contains 7 different content areas that may be discussed: attention problems, hyperactivity problems, oppositional/defiant problems, mood problems, anxiety problems, school problems, and other specific PSC items. Within each of the 7 content areas there is room to record extra items. Definitions for the content areas and individual items were developed (see Appendix J). The checklist was used to track whether the parent or the resident initiated a particular topic by recording "p" in front of the item if it was initiated by the parent and "r" in front of the item if it was initiated by the resident.

Procedures

Parent-child dyads were approached in the waiting room and asked if they would like to participate in a study investigating parent-physician communication during pediatric visits. The child's legal

guardian (natural parent or otherwise) must have attended the visit with the child in order to participate. Parental (legal guardian) consent and child assent were obtained in writing (Appendix K). Parents were informed that their visit with the pediatric resident would be audiotaped and that they would be asked to fill out 2 questionnaires. Parents completed the PSC (Appendix C) while in the waiting room before their child's office visit and the PSQ (Appendix D) in the exam room after the resident exited the room.

Pediatric residents were informed that the purpose of the study was to investigate parent-physician communication during pediatric visits. Informed consent was obtained in writing (Appendix K). Data was collected an average of 3 days per week for the months of August and September.

Baseline. Each pair of residents began the baseline phase of the study at the same time (J.G. and B.S. during the second week of August, and K.E. and G.F. during the second week of September). Baseline was in effect for four patient visits (i.e., four audiotaped sessions with each parent-child dyad) for the first resident in each pair (i.e., J.G. and K.E.) and for six patient visits for the second resident in each pair (B.S. and G.F.). Baseline data collection involved tape-recording the residents' visits with each study patient and recording on a data sheet the ten target behaviors previously described.

PSC Condition. After a stable baseline was established, the resident was trained individually using a standardized protocol that was developed for the purpose of this study (Appendix L). The resident was trained regarding the importance of identifying behavioral and emotional problems in children and was taught how to use the PSC to identify children with behavioral/emotional problems (see Appendix L for training protocol). After training, the resident completed a questionnaire designed to measure the knowledge he had gained regarding screening for behavioral/emotional problems in children (see Appendix M). After the questionnaire was completed, the researcher provided feedback regarding the correct answers and provided the resident with the opportunity to ask further questions. After the resident received feedback regarding his performance on the questionnaire, data collection began for the first intervention (PSC Condition). The PSC Condition was in effect for four clinic visits for each resident.

PSC + H Condition. After data were collected for the PSC Condition, the residents were individually trained using a standardized protocol regarding the importance of intervention, and handouts were provided that could be offered to parents (see Appendix L for training protocol). After the resident was trained on the second intervention, a questionnaire was given to him to test the knowledge he had gained on which handouts would be most appropriate to give to parents (Appendix N). After the questionnaire was completed, the researcher provided

feedback regarding the correct answers and provided the resident with the opportunity to ask further questions. After the resident had received feedback, data collection began for the PSC + H Condition. The PSC + H Condition was in effect for four clinic visits for each resident.

Data Collection and Interobserver Agreement

Target behaviors were recorded using a 15-second interval recording procedure. Pediatric clinic visits were audiotaped and the rater listened to the audiotape and recorded target behaviors after the clinic visit. On each audiotape, data collection began once the resident was heard introducing himself and ended when he left the room.

A second rater independently recorded the target behaviors from approximately 30% (n=16) of the audiotapes. This rater was initially trained on the scoring procedures (see Appendix B) using pilot data from a fifth physician not included in the study. Interobserver agreement was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100. The range of interobserver agreement for the study was from 87% to 100%. The mean interobserver agreement score was 94%.

RESULTS

Treatment Integrity

Appendices M and N provide the questionnaires used to assess treatment integrity. These questionnaires were designed to assess residents' knowledge regarding the purpose of behavioral screening, proper use and scoring of the PSC, the importance of intervention for behavioral/emotional problems, and the use of parent handouts as one form of intervention. Treatment integrity was assessed as the percentage of questions answered correctly for each of the training questionnaires (see Appendix M and N for these questionnaires). K.E. answered 100% of the questions from both questionnaires correctly and reported having no questions at the end of training. G.F answered 92% of the questions correctly from the PSC Training Questionnaire (Appendix M) (he was unable to recall item 3 from question 3; he missed 1 out of 12 questions) and 100% of the questions correctly from the Handout Training Questionnaire (Appendix N). He was provided with feedback regarding the correct answer on the PSC Training Questionnaire and reported having no questions at the end of training. J.G. answered 92% of the questions correctly from the PSC Training Questionnaire (he incorrectly answered question 2) and was given feedback regarding the correct answer. He answered 100% of the questions on the Handout Training Questionnaire correctly. He reported having no questions at the end of

training. B.S. answered 100% of the questions correctly for both questionnaires and reported having no questions at the end of training.

Hypothesis 1: Percentage of Intervals the Resident Spent Discussing Behavioral or Emotional Issues

The first hypothesis was supported. Figures 1 and 2 present the percentage of intervals spent discussing behavioral or emotional issues (including nine of the ten target behaviors; ignoring was excluded from this analysis) for each resident.

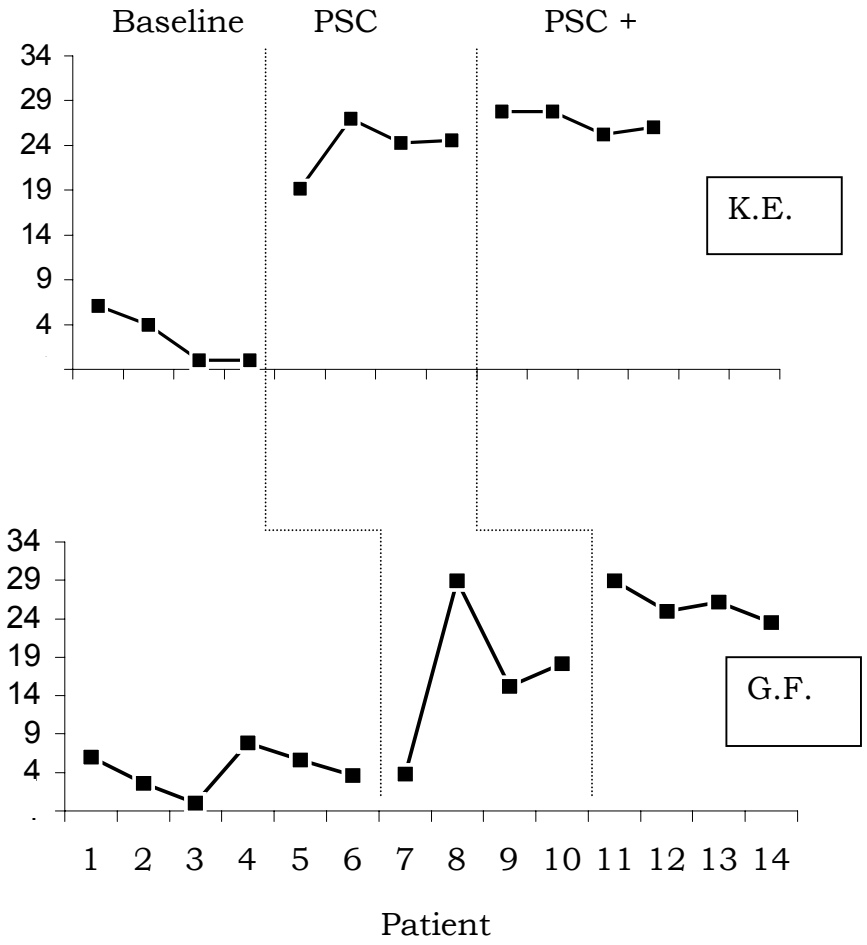

Figure 1. Percentage of Intervals Spent Discussing Behavioral or Emotional Issues for K.E. and G.F.

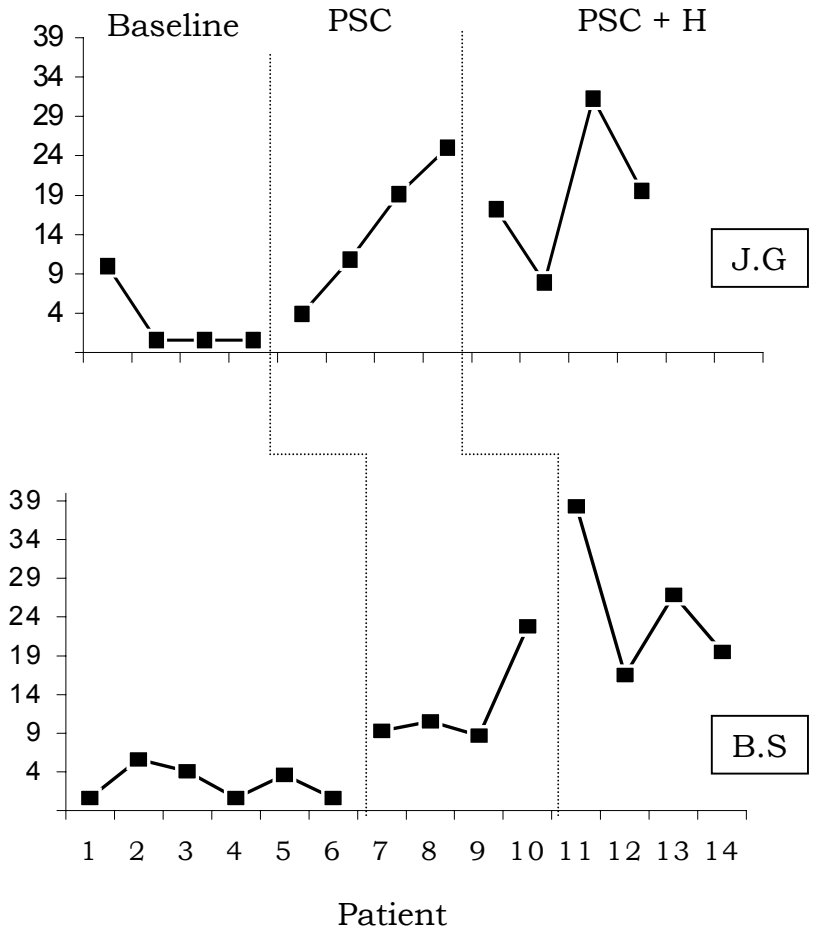

Figure 2. Percentage of Intervals Spent Discussing Behavioral or Emotional Issues for J.G. and B.S.

All four residents demonstrated an increase in the percentage of intervals spent discussing behavioral or emotional issues from baseline to each of the experimental conditions (PSC Condition and PSC + H Condition).

The mean percentage of intervals spent discussing behavioral or emotional issues increased from 2.5 during baseline to 23.8 during the PSC Condition and 26.7 during the PSC + H Condition for K.E.

Similarly, the mean percentage of intervals spent discussing behavioral or emotional issues increased from 4.3 during baseline to 16.5 during the PSC Condition and 25.9 during the PSC + H Condition for G.F. The mean percentage of intervals spent discussing behavior or emotional issues increased from 2.5 during baseline to 14.7 during the PSC Condition and 18.9 during the PSC + H Condition for J.G. The mean percentage of intervals spent discussing behavioral or emotional issues increased from 2.2 during baseline to 12.8 during the PSC Condition and 25.3 during the PSC + H Condition for B.S.

Hypothesis 2: Number of Total Questions By the Resident Regarding Behavioral or Emotional Issues

The second hypothesis was supported. The number of Total Questions regarding behavioral or emotional issues is presented in Figures 3 and 4 for each resident. Total Questions (combined total of *initial questions, follow-up questions,* and *comments*) increased from baseline to the treatment conditions for each of the residents. The mean number of Total Questions increased from 1.3 during baseline to 15.0 during the PSC Condition and 13.3 during the PSC + H Condition for K.E. The mean number of Total Questions increased from 3.5 during baseline to 9.5 during the PSC Condition and 12.3 during the PSC + H Condition for G.F. The mean number of Total Questions increased form .25 during baseline to 7.0 during the PSC Condition and 9.8 during the PSC + H Condition for J.G. The mean number of Total Questions

increased from .67 during baseline to 6.0 during the PSC Condition and 10.75 during the PSC + H Condition for B.S.

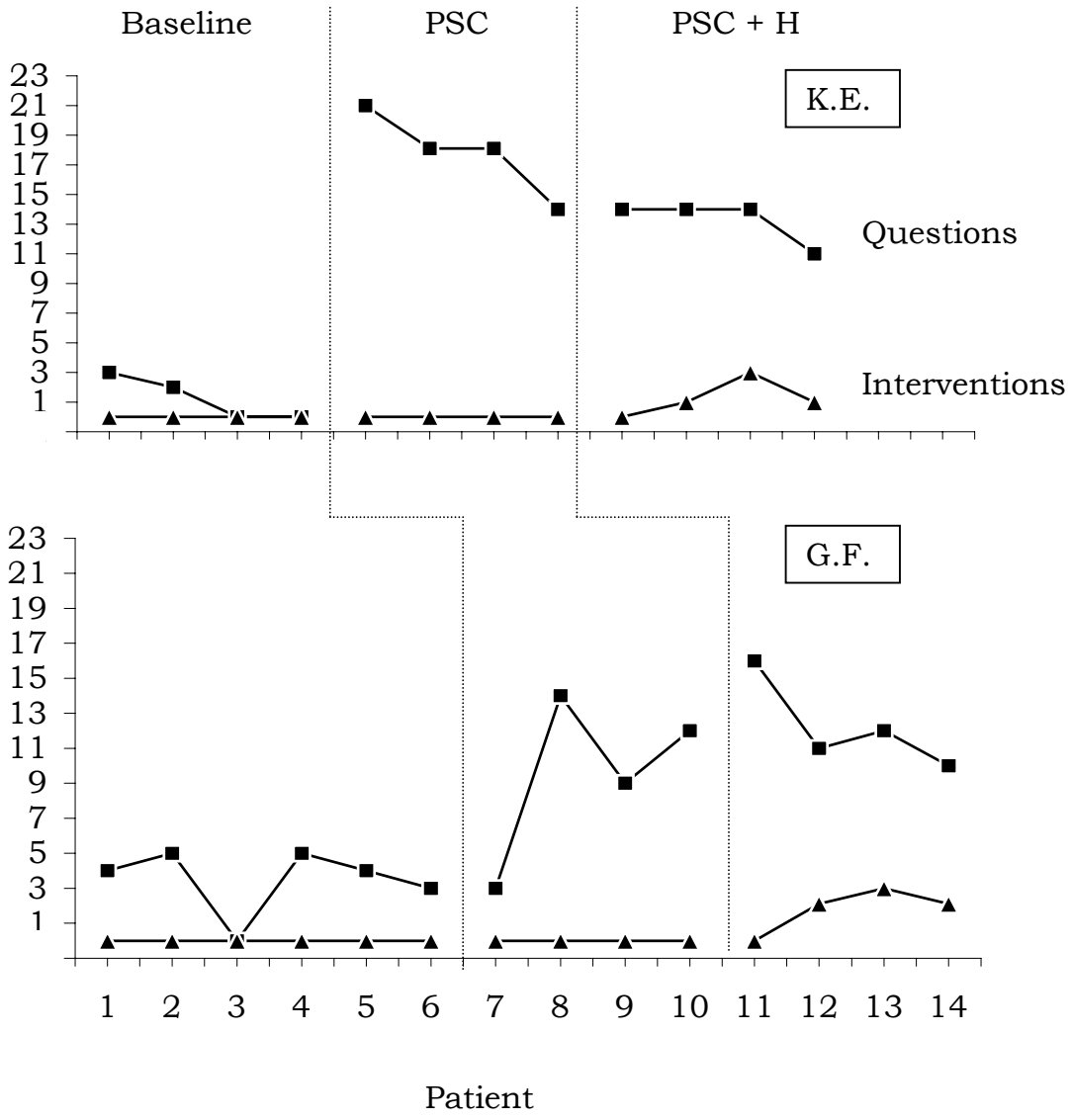

Figure 3. Total Number of Questions for K.E. and G.F.

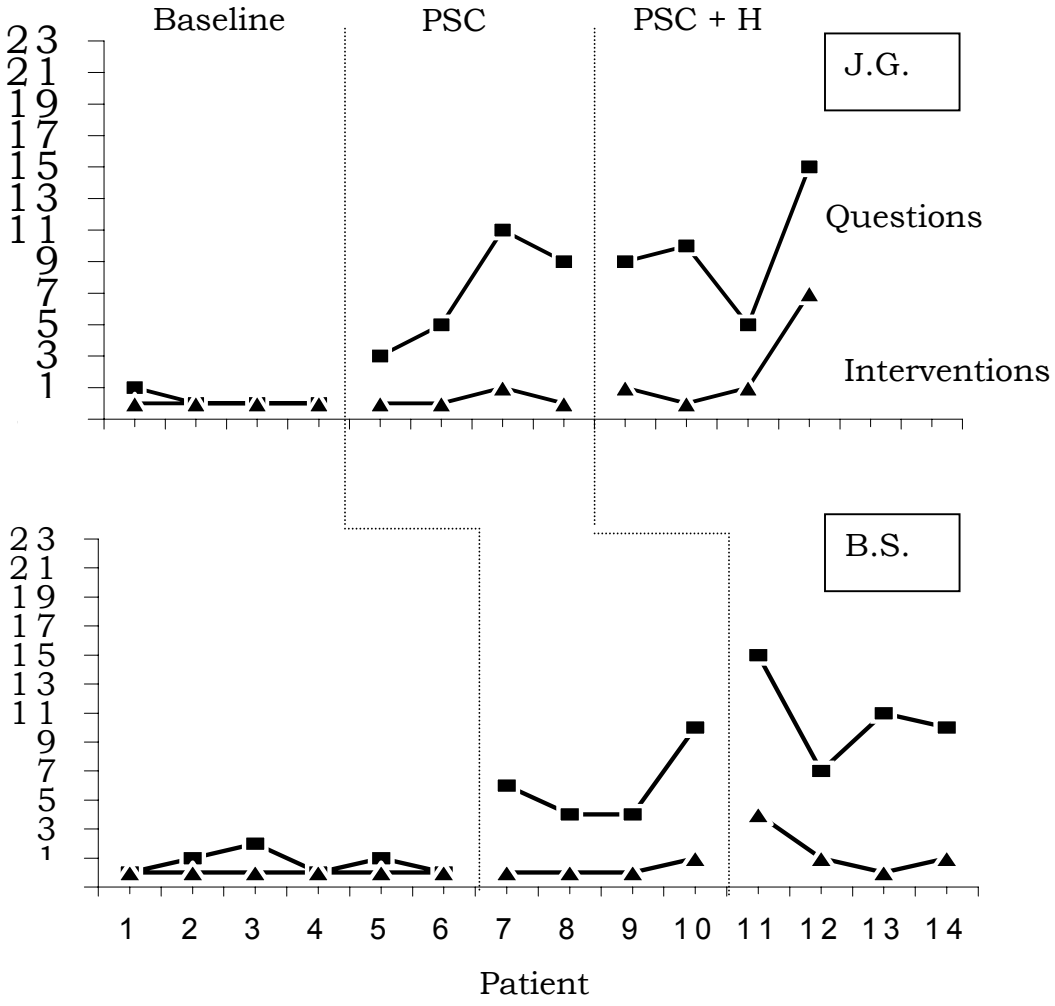

Figure 4. Total Number of Questions for J.G. and B.S.

Hypothesis 3: Total Number of Resident-Initiated Topics Regarding Behavioral or Emotional Issues

The third hypothesis was supported. The total number of resident-initiated topics regarding behavioral or emotional issues is presented in Figures 5 and 6. As seen in the Figures, the total number of resident-

initiated topics regarding behavioral or emotional issues increased from baseline to the treatment conditions for each of the residents.

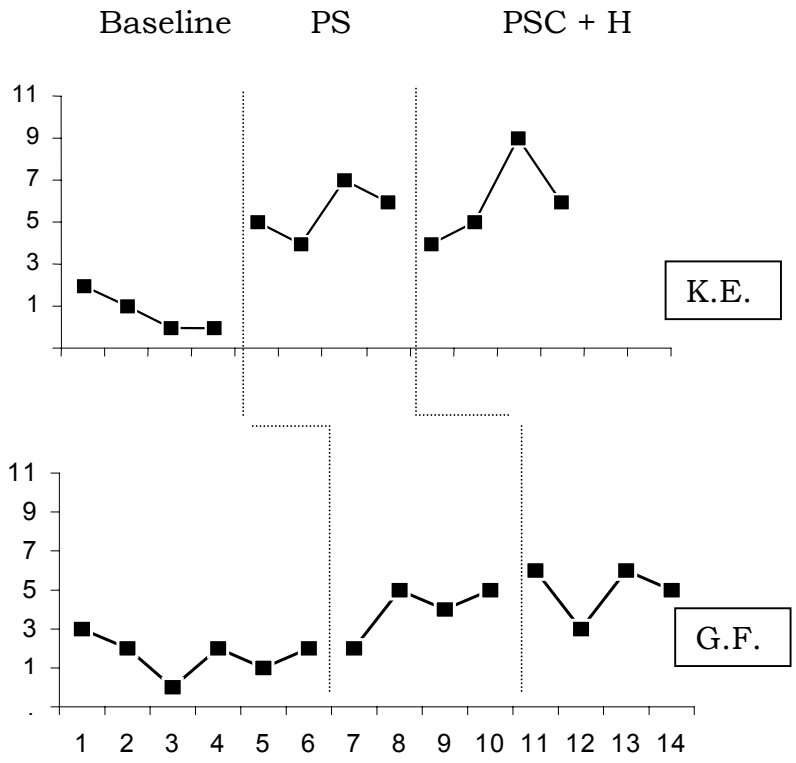

Figure 5. Total Number of Resident-Initiated Questions for K.E. and G.F.

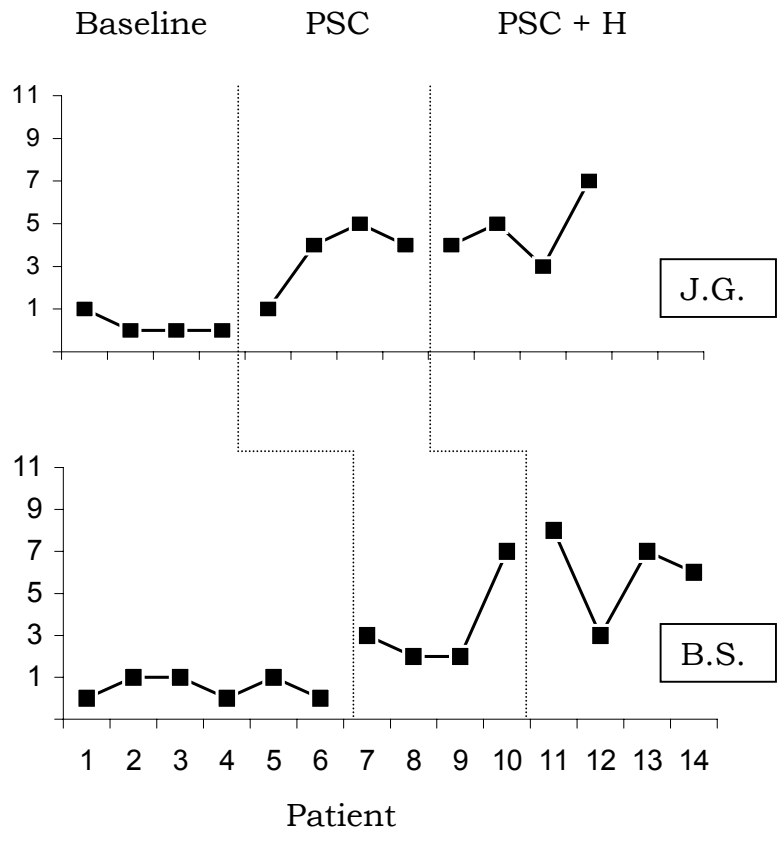

Figure 6. Total Number of Resident-Initiated Topics for J.G. and B.S.

The mean number of resident-initiated topics increased from .75 during baseline to 5.5 during the PSC Condition and 6.0 during the PSC + H Condition for K.E. During baseline, K.E. initiated topics concerning school and friends. During the PSC Condition, K.E. asked questions about school, complaining of aches and pains, blaming others, being easily distracted, and the child wanting to be with the parent more than usual. During the PSC + H Condition, K.E. initiated topics concerning school, complaining of aches and pains, blaming others, being fidgety, fighting, and showing less interest in friends. The mean number of resident-initiated topics increased from 1.7 during baseline to 4.0 during

the PSC Condition and 5.0 during the PSC + H Condition for G.F. During baseline, G.F. initiated topics concerning school and behavior at home. During the PSC Condition, G.F. initiated questions about school (including grades), complaining of aches and pains, blaming others, following rules, the child wanting to be with the parent more than usual, and spending more time alone. During the PSC + H Condition, G.F. initiated questions about school, having difficulty concentrating, tiring easily, becoming distracted easily, complaining of aches and pains, spending more time alone, and having trouble with a teacher. The mean number of resident-initiated topics increased from .25 during baseline to 3.5 during the PSC Condition and 4.8 during the PSC + H Condition for J.G. During baseline, J.G. initiated one question about school. During the PSC Condition, J.G. initiated questions about school, stealing, being unhappy or sad, taking risks, having difficulty concentrating, fighting, having trouble with a teacher, and worrying. During the PSC + H Condition, J.G. initiated questions about school, blaming others, friends, spending more time alone, fighting, taking unnecessary risks, and following rules. The mean number of resident-initiated topics increased from .5 during baseline to 3.5 during the PSC Condition and 6.0 during the PSC + H Condition for B.S. During baseline, B.S. initiated questions about school. During the PSC Condition, B.S. initiated questions about school, the child wanting to be with the parent more than usual, fighting, following rules, being unhappy or sad, spending more time alone,

stealing, having less fun than usual, and friends. During the PSC + H Condition, B.S. initiated questions about school, fighting, following rules, stealing, being unhappy or sad, having less fun than usual, having trouble with a teacher, having difficulty concentrating, not sharing, hyperactivity, and not showing feelings.

Hypothesis 4: Total Number of Interventions by the Resident Regarding Behavioral or Emotional Issues

The fourth hypothesis was not supported. The total number of Interventions regarding behavioral or emotional issues is presented in Figures 7 and 8 for each resident. The total number of Interventions was calculated for each resident and included *offered the parent advice, offered the parent reassurance, offered the parent educational information, offered the parent a handout, offered a mental health referral,* or *offered a prescription.* The total number of Interventions demonstrated no appreciable difference for any of the residents from baseline to the PSC Condition (as predicted) and a non-significant trend towards increasing from the PSC Condition to the PSC + H Condition. The mean total number of Interventions was 0 during baseline and the PSC Condition and was 2.0 for the PSC + H Condition for K.E. The mean total number of Interventions was 0 during baseline and the PSC Condition and was 1.8 during the PSC + H Condition for G.F. The mean total number of Interventions was 0 during baseline and .25 during the PSC Condition and 2.25 during the PSC + H Condition for J.G.

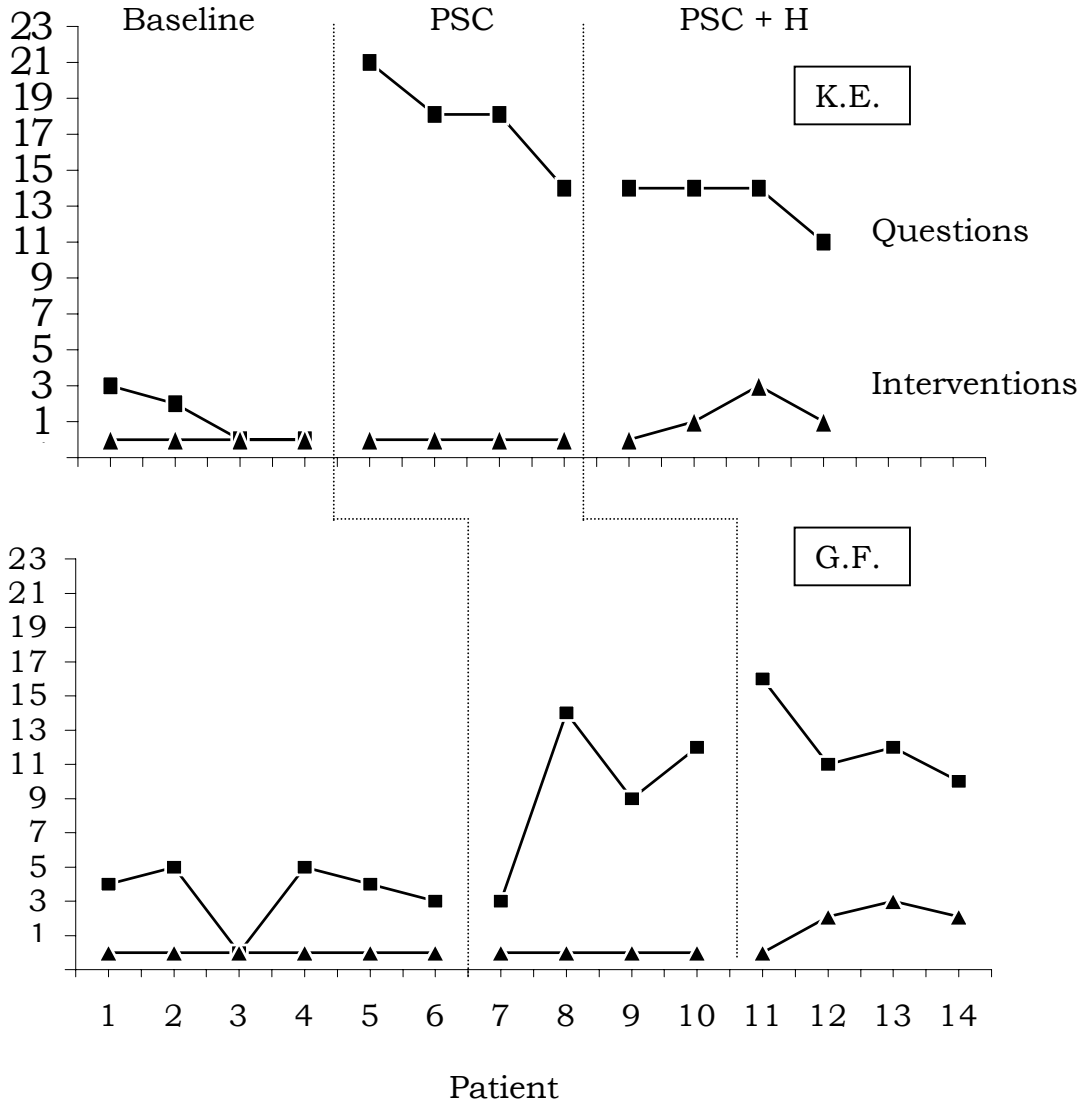

Figure 7. Total Number of Interventions for K.E. and G.F.

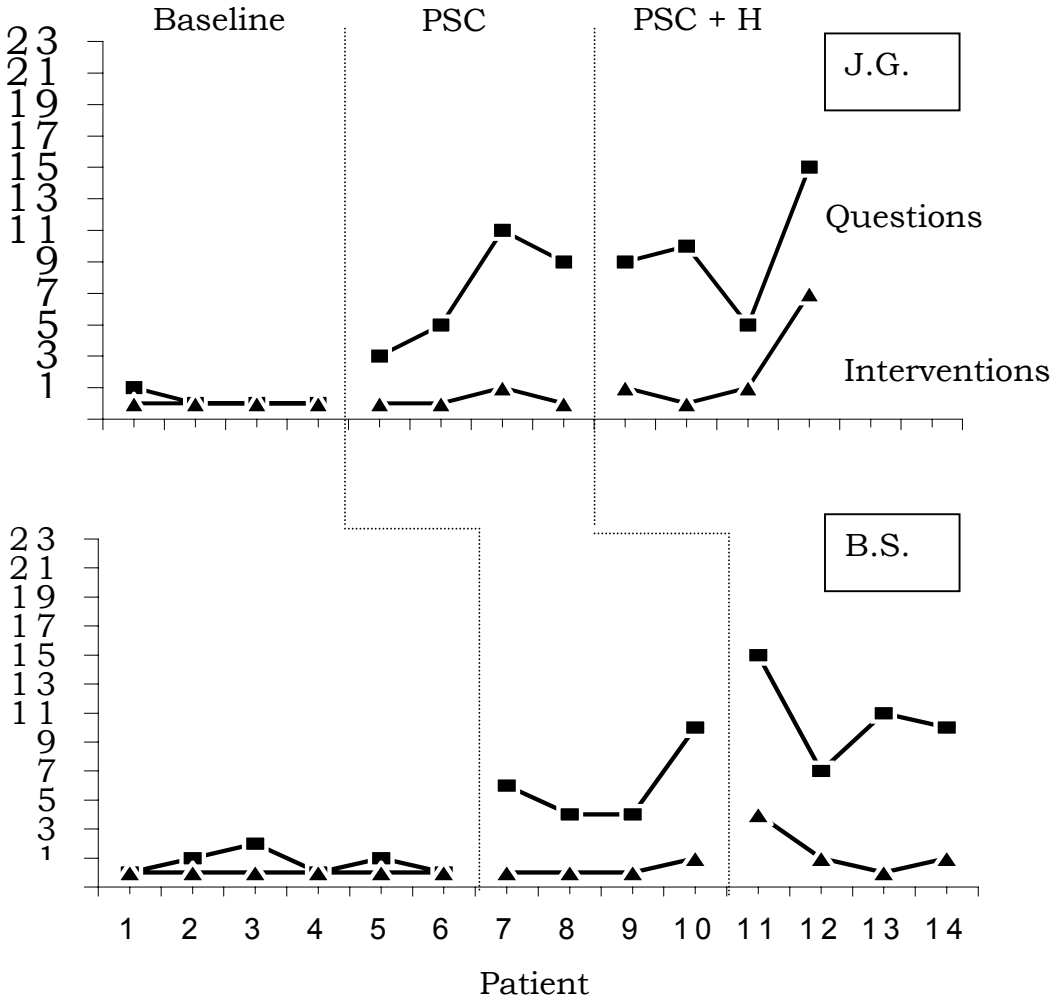

Figure 8. Total Number of Interventions for J.G. and B.S.

The mean total number of interventions was 0 during baseline and .25 during the PSC Condition and 1.5 during the PSC + H Condition for B.S. Because the baseline and PSC Conditions did not include the availability of handouts, the effect of the PSC + H Condition on the total number of interventions excluding *offering a behavioral handout* was also

examined. When this intervention is excluded from the analysis, the trend towards an effect disappears.

Frequencies of the 10 individual target behaviors for each resident across baseline and the 2 experimental conditions are provided in the Table in Appendix O.

Hypothesis 5: Parent Satisfaction During Baseline, PSC Condition and PSC + H Condition

The fifth hypothesis was not supported. Total scores were calculated for the parent satisfaction measure, the PSQ. Figures 9 and 10 present PSQ Totals for each resident by condition. Visual analysis indicates that the PSQ scores for two of the residents (K.E. and J.G.) are lower during the PSC + H Condition, whereas the other two residents (G.F and B.S.) show more stability of PSQ scores by condition. The mean PSQ score was 90.25 during baseline and increased to 96.0 during the PSC Condition and then decreased to 79.0 during the PSC + H Condition for K.E. The mean PSQ score was 86.2 during baseline and increased to 91.75 during the PSC Condition and then decreased slightly to 90.0 during the PSC + H Condition for G.F. The mean PSQ score was 92.25 during baseline and decreased to 86.75 during the PSC Condition and 78.0 during the PSC + H Condition for J.G. The mean PSQ score was 84.67 during baseline and increased to 90.75 during the PSC condition and decreased slightly to 89.5 during the PSC + H Condition. Because of the variability in PSQ scores across residents by condition, follow-up analyses were conducted examining PSQ scores by condition.

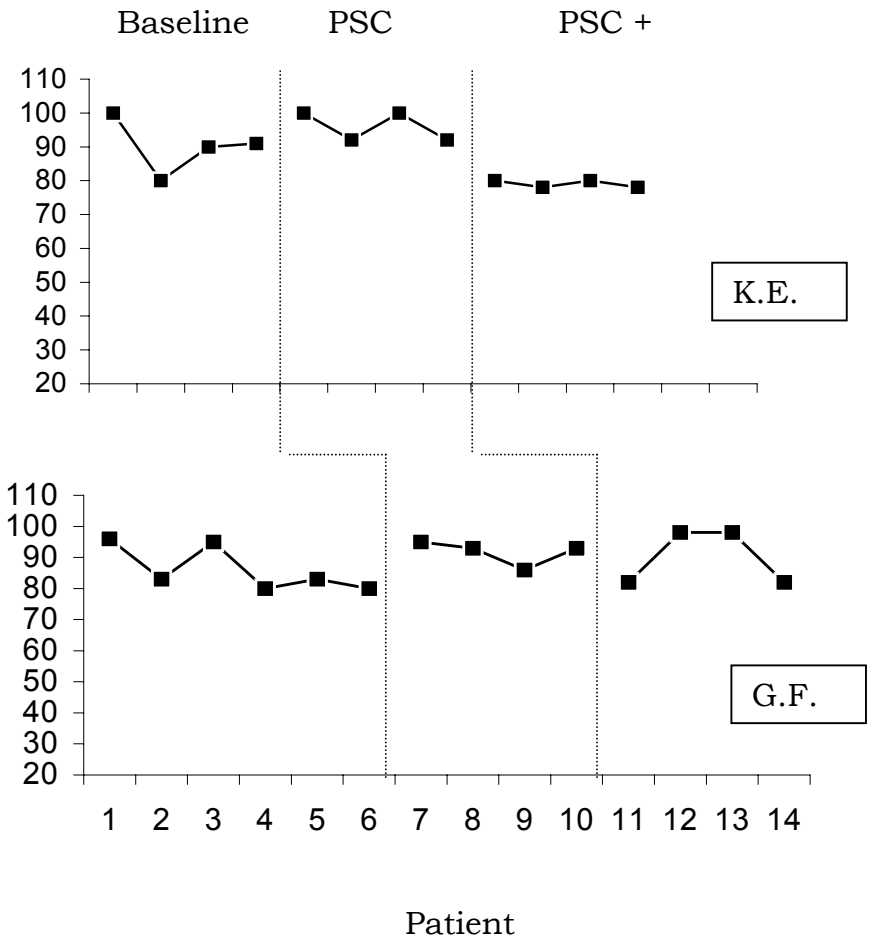

Figure 9. Satisfaction Score for K.E. and G.F.

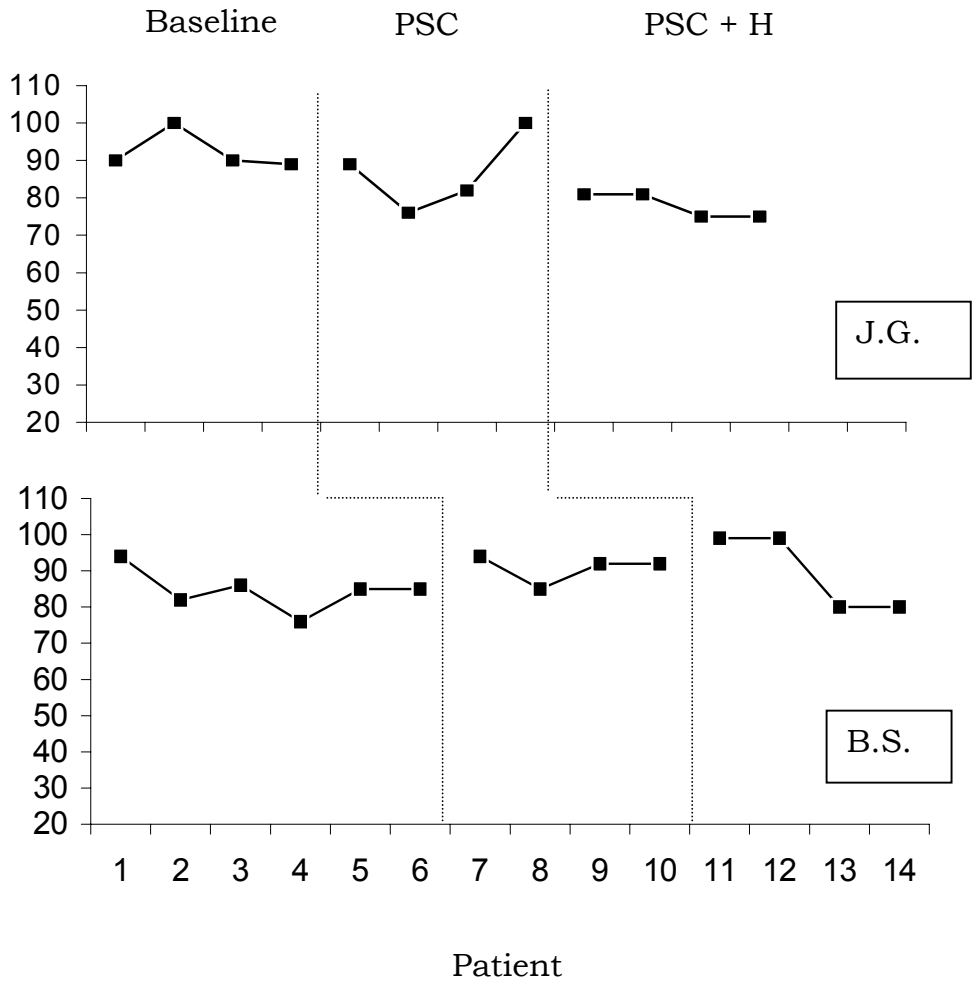

Figure 10. Satisfaction Score for J.G. and B.S.

The mean PSQ score for the baseline condition (n=20) across residents was 87.75 (SD=6.89). The mean PSQ score for the PSC Condition (n=16) across residents was 91.13 (SD=6.58). The mean PSQ score for the PSC

+ H Condition (n=16) across residents was 84.13 (SD=8.82). A one-way ANOVA across conditions revealed a significant difference between groups ($F(2,51)=3.73$, $p<.05$). Post-hoc analysis using Student-Newman-Kuels procedure revealed that PSQ score for the PSC + H Condition was significantly lower than those for the PSC Condition.

DISCUSSION

The results of this study provide preliminary evidence that the use of a screening instrument in pediatric primary care clinics increases discussions about behavioral and emotional issues between pediatric residents and parent-child dyads. As mentioned previously, increasing discussions about behavioral and emotional issues in the exam room is a necessary first step in building an effective strategy for the identification of psychologically distressed children by physicians. Physicians cannot be expected to accurately identify distressed children unless discussions about children's behavioral and emotional issues take place. This study demonstrates that the use of a screening measure is an effective prompt for the physician to initiate interactions regarding children's behavioral and emotional issues. All four residents in this study showed a significant increase in the percentage of time they spent engaged in discussions regarding behavioral or emotional issues from baseline to the experimental conditions. Furthermore, there was an increase in the variety of questions asked about behavioral and emotional issues. For example, although G.F. was the only resident who consistently asked behavioral questions during baseline, his variety of questions was limited. For five of the six patients in his baseline phase, he limited his behavioral questions to "How's school going?" and "How are things at home?" During the experimental conditions he continued to ask

questions about school and home, but also inquired about a variety of other behaviors that were listed on the PSC.

These results are important in light of the American Academy of Pediatrics' stance that one of the responsibilities of pediatricians is to identify behavioral and emotional problems in school-age children. These results show that without the use of a screening instrument, pediatric residents ask few questions regarding behavioral or emotional difficulties, making it extremely unlikely that they would identify dysfunctional children. Anecdotally, both of the attending faculty pediatricians in this clinic (I.J. and C.V.) reported that they routinely request that the residents ask questions about the child's behavior and emphasize the importance of psychosocial screening, yet rarely do the residents ask about these issues without continued prompting. The results of this study suggest that the use of a screening instrument can serve as a necessary prompt to residents for psychosocial screening in children.

On the other hand, the results of this study do not support the hypothesis that brief training of residents regarding the importance of interventions increases intervention attempts. Although there was a very small trend towards an effect during the PSC + H Condition, this trend disappeared when the specific intervention of offering a behavioral handout was removed from the analyses.

The fact that the total number of intervention attempts did not increase in the PSC + H Condition may have several possible explanations. First, none of the children in this study were attending the pediatric clinic for evaluation or treatment of behavioral problems, therefore it may not be surprising to see very few intervention attempts for these children. Second, the training that was used in this study was very brief, taking 30 minutes to complete for the PSC + H Condition. It may be the case that the intervention was not effective because the training was not as intensive or thorough as needed in order to see a change in resident behavior. Third, all of the residents in this study were in their first year of residency and therefore much less experienced in working with children and families than older residents. This factor may have impacted their ability or willingness to attempt behavioral interventions with parents and children.

Another finding of this study was that the residents did not ignore comments made by parents regarding behavioral or emotional issues, in contrast to previous research indicating that 17% of all behavioral questions or comments made by parents are ignored by physicians (Sharp, et al., 1992). Although this finding is positive, it must be interpreted with caution for two reasons. First, this study included only 4 pediatric residents, whereas the Sharp, et al. (1992) study was based on the behavior of 34 residents and physicians. Second, parents in this study rarely initiated questions about behavioral or emotional concerns

(n=3), whereas in the Sharp, et al. (1992) study parents frequently initiated questions about behavioral or emotional concerns. In this study it was almost exclusively the resident who initiated behavioral topics, thus it would be odd for the resident to ignore a comment or question from a parent when it was the resident who initiated the exchange.

More generally, the results of this study provide preliminary evidence of pediatric residents' ability to use the PSC as a starting point for behavioral discussions. Each of the residents used the PSC as a means of initiating discussions regarding behavioral and emotional issues. Discussions were almost always initiated by the resident saying something like "I'd like to ask you a few questions about the form you filled out earlier about your child's behavior." Furthermore, during the PSC and PSC + H Conditions, ninety-seven percent of all initial questions about behavioral or emotional concerns were items taken directly from the PSC.

However, there is some indication that the residents did not use the PSC total score as a guide for identifying which children may need more intensive screening or intervention, an original aim of the PSC (Murphy, Jellinek, & Milinsky, 1989). For example, there was no correlation between the PSC total score and the total number of questions the resident asked about behavioral or emotional issues for the PSC or PSC + H Conditions ($r=.21$, $p>.05$). Also, of the thirteen children in the PSC or PSC + H Conditions with total PSC scores greater than the

cutoff of 28, only two were referred to mental health services for follow-up screening.

Although these findings are not definitive of residents' failure to use the PSC score as a means of identifying which children need more careful behavioral screening, it does indicate the need for follow-up studies examining this issue. Studies examining physicians' ability to use a screening instrument to accurately identify children in psychological distress are needed in order to clarify this issue.

As mentioned in the introduction, one potential barrier to routine psychosocial screening in pediatric primary care settings is time constraints. For instance, Fritz and Bergman (1985) indicated that many providers believe there is little time available to assess mental heath problems in primary care settings due to a combination of financial, administrative, and parental pressures. Instruments such as the PSC were developed to reduce pressures related to time constraints (Kelleher & Long, 1994). Because of a lack of research evaluating physicians' use of these instruments, however, it is uncertain if these measures are time efficient. In this study it was found that the use of the PSC did not significantly increase the amount of time the resident spent in the room with the parent and child ($F(2,51)=1.55$, $p>.05$). During the baseline condition (n=20), the mean time spent in the room by the resident was 9.30 minutes (SD=4.55), whereas in the PSC Condition (n=16) and PSC + H Condition (n=16) the mean time spent in the room by the resident was

11.34 minutes (SD=3.10) and 10.80 minutes (SD=2.74), respectively. These results suggest that screening for mental health problems in a pediatric primary care setting may not automatically increase the amount of time the physician spends with each patient. Anecdotally, all 4 pediatric residents in this study reported that screening was unimposing and easy to do. K.E. reported that using the PSC "doesn't take up much more time than not using it."

Another issue that must be explored regarding the use of behavioral screening instruments in pediatric primary care is that of patient satisfaction. The importance of evaluating patient satisfaction is becoming increasingly obvious as studies demonstrate the significant relationship between patient satisfaction and health-related behaviors (Pruitt, Varni, Seid, & Setoguchi, 1997). Several researchers have shown that patient satisfaction is linked to medical adherence, continuity of care, clinic attendance, better understanding and remembrance of medical information, reduced "doctor shopping," and decreased medical litigation against physicians (Cromer & Tarnowski, 1989; Lewis, Scott, Pantell, & Wolf, 1986; Pruitt, et al., 1997; Ross & Duff, 1982; Young, Wasserman, McAullife, Long, Hagan, & Heath, 1985). However, the vast majority of research in this area has been conducted with adult patients receiving general medical care (Varni, Quiggins, & Ayala, 2000).

There have been no studies to date examining patient satisfaction with behavioral screening by physicians in pediatric primary care

settings. This study predicted that the use of the PSC would not adversely affect parents' satisfaction with their child's office visit. Contrary to these expectations, there was evidence that parental satisfaction was different for 2 of the residents depending on the condition. Furthermore, both of these residents (K.E. and J.G.) showed decreases in parental satisfaction from baseline to the PSC + H Condition. Although these findings are not indicative of behavioral screening lessening parent satisfaction, they are nonetheless troubling. Ideally, parent satisfaction with their child's health care provider would remain high when the provider screens for child behavioral problems and provides intervention as necessary. At minimum, one would hope that parent satisfaction would not be adversely affected by physicians' behavioral screening practices. The results of this study suggest that there is variability in parent satisfaction that may be related to individual differences in providers. However, because this is a small N study it is impossible to determine if the variability in parent satisfaction is related to the experimental conditions, the individual providers, or other, unidentified factors.

Furthermore, previous research suggests that there is differential parental attitudes toward pediatric primary care providers as resources for behavioral concerns during well-child visits (Hawkins-Walsh, 1999). The results of the Hawkins-Walsh study indicated that the majority of parents had never talked to their pediatric health care provider about

behavioral issues. Furthermore, positive parental attitudes towards providers as resources for behavioral concerns was related to 1) general satisfaction with the provider, 2) positive parental attitude toward advice seeking, 3) parental concern regarding a child's behavior, 4) a collaborative decision-making style of the provider, 5) projection of concern and interest by the provider, 6) history of previously satisfying experience with a provider about a behavioral issue, and 7) positive peer beliefs about the role of health care providers in the area of behavior. It is possible that the variability of satisfactions scores in this study may be related to factors such as those found in the Hawkins-Walsh (1999) study. Future research examining the relationship between parent satisfaction and the behavioral screening practices of pediatric primary care providers is necessary.

Limitations

There are limitations of this study that must be addressed. First, demand characteristics of the study may have influenced the behavior of the residents. More specifically, although the residents were blind to the specific hypotheses of the study, the PSC Training and PSC + H Training made the general purpose of the research self-evident. The residents were aware that they were participating in a study and therefore may have behaved in a socially desirable manner. The residents were also aware that they were being audiotaped, which may have further increased their reactivity. Second, because the pediatric rotation lasts

for only a month, we were unable to gather any follow-up data for evaluation of maintenance effects. Lack of maintenance data limits our conclusions considerably. Third, the small N of the design limits the generalizability of this study to other pediatric residents or pediatricians.

Future Directions

Several researchers have shown that pediatricians and family practitioners are interested in psychosocial screening. One survey demonstrated that 23% of physicians who had requested information about the PSC (N=201) stated that they used it in their private practice. All of these physicians rated the PSC as useful, and nearly 80% reported that it led to increased case-finding and/or referrals (Bishop, Murphy, Jellinek, & Dusseault, 1991). Furthermore, 96% of the physicians indicated that they would continue to use the PSC; more than half of them routinely or frequently.

In spite of interest regarding psychosocial screening and the use of screening instruments, this is the first study to examine physicians' use of a screening instrument in attempting to identify children with potential behavioral or emotional problems. Follow-up studies are necessary in order to determine the utility and efficacy of screening instruments in identifying children with psychosocial dysfunction. First, larger studies are needed in order to clarify whether the use of a screening instrument increases physician-parent interaction regarding behavioral and emotional issues. Second, longitudinal studies are

needed in order to determine maintenance effects of using a screening instrument, if any. Third, more naturalistic studies are needed to decrease the demand characteristics associated with participation in an experiment. Finally, research must begin to examine the accuracy with which physicians use screening instruments. Studies examining physicians' decision-making about a child based on screening results must be compared to diagnostic evaluations by trained clinicians in order to determine the true usefulness of psychosocial screening instruments in pediatric settings.

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APPENDIX A: CODING

Pediatric Resident ID # _____

	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5
	ID #	ID #	ID #	ID #	ID #
INTERVALS					
15 sec					
30 sec					
45 sec					
1 minute					
75 sec					
90 sec					
105 sec					
2 minute					
135 sec					
150 sec					
165 sec					
3 minute					
195 sec					
210 sec					
225 sec					
4 minute					
255 sec					
270 sec					
285 sec					
5 minute					
315 sec					
330 sec					
345 sec					

Q=Questions
FQ=Follow-up Questions
C=Comments
A=Advice
R=Assurance
E=Education
I=Ignored
H=Handout
M=Mental Health Referral
P=Prescription

NOTE See handout labeled "Definitions of Terms in Pediatric Resident Behavior Coding" for definitions of terms at the left

Pediatric Resident ID # _____

	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5
	ID #	ID #	ID #	ID #	ID #
INTERVALS					
6 minute					
375 sec					
390 sec					
405 sec					
7 minute					
435 sec					
450 sec					
465 sec					
8 minute					
495 sec					
510 sec					
525 sec					
9 minute					
555 sec					
570 sec					
585 sec					
10 minute					
615 sec					
630 sec					
645 sec					
11 minutes					
675 sec					
690 sec					
705 sec					

Q=Questions
FQ=Follow-up Questions
C=Comments
A=Advice
R=Assurance
E=Education
I=Ignored
H=Handout
M=Mental Health Referral
P=Prescription

NOTE See handout labeled "Definitions of Terms in Pediatric Resident Behavior Coding" for definitions of terms at the left

Pediatric Resident ID # _____

	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5
	ID #	ID #	ID #	ID #	ID #
INTERVALS					
12 minutes					
735 sec					
750 sec					
765 sec					
13 minutes					
795 sec					
810 sec					
825 sec					
14 minutes					
855 sec					
870 sec					
885 sec					
15 minutes					
915 sec					
930 sec					
945 sec					
16 minutes					
975 sec					
990 sec					
1005 sec					
17 minutes					
1035 sec					
1050 sec					
1065 sec					

Q=Questions
FQ=Follow-up Questions
C=Comments
A=Advice
R=Assurance
E=Education
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M=Mental Health Referral
P=Prescription

NOTE See handout labeled "Definitions of Terms in Pediatric Resident Behavior Coding" for definitions of terms at the left

Pediatric Resident ID # _____

	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5
	ID #	ID #	ID #	ID #	ID #
INTERVALS					
18 minutes					
1095 sec					
1110 sec					
1125 sec					
19 minutes					
1155 sec					
1170 sec					
1185 sec					
20 minutes					
1215 sec					
1230 sec					
1245 sec					
21 minutes					

Q=Questions
FQ=Follow-up Questions
C=Comments
A=Advice
R=Assurance

E=Education
I=Ignored
H=Handout
M=Mental Health Referral
P=Prescription

NOTE See handout labeled "Definitions of Terms in Pediatric Resident Behavior Coding" for definitions of terms at the left

APPENDIX B: RESPONSE DEFINITIONS

Total Questions: (includes *initial questions, follow-up questions,* and *comments*)

1) **Initial Questions** will be coded as IQ and defined as any new topic of inquiry about behavioral or emotional issues in question format (follow-up questions will be coded separately). The topic is new in that it has never been discussed before in this visit. A question takes the standard grammatical-linguistic form.

Examples of IQs by pediatric residents:

"Does he get into fights with other children frequently?"
"What do you do to get him to complete his homework?"
"What are her grades like?"

Examples of IQs by parents:

"What should I do about his fighting with other kids?"
"How do I get him to do his homework?"
"Should I punish her for bad grades?"

2) **Follow-up questions** will be coded as FQ and defined as a question about behavioral or emotional issues that is asked in response to the answer given by the other party.

Examples of FQs by pediatric residents:

Pediatric Resident Q: "Does he get into fights with other children frequently?"
Parent Response: "All the time."
Pediatric Resident FQ: "Does this happen more at school or at home?"

Examples of FQs by parents:

Parent Q: "How do I get him to do his homework?"
Pediatric Resident Response: "Don't let him go outside until it's done."
Parent FQ: "But what if he still won't do his homework?"

3) **Comments** will be coded as C and defined as any topic about behavioral or emotional issues brought up in a non-question format.

Examples of Cs by pediatric residents:

"You said that he is having trouble sleeping."
"Tell me about the problems she has with taking other people's things."

Examples of Cs by parents:

"I can't get him to take a bath."
"She never does what I tell her to."
"Her grades are terrible."

Interventions: (includes *offering advice, offering reassurance, offering educational information, offering a handout, offering a mental health referral,* and, *offering a prescription*)

1. Offered **advice**/gave suggestions (A)

   Example of A by resident:

   Parent Q: "What should I do about his sleeping problems?"
   Resident A: "He may be taking too many naps in the afternoon. I wouldn't let him sleep anymore during the day."

2. Offered **reassurance** for developmentally normal problems (R)

   Example of R by resident:

   Parent C: "He seems to be afraid of the dark."
   Resident R: "That's probably normal for his age."

3. Offered **educational** information (E)

   Example of E by resident:

   Parent Q: "Is he sleeping too much?"
   Resident E: "Children usually need more sleep than adults. About 10 hours a night is good."

4. Offered a **handout** (H)

   Example of H by resident:

   Parent C: "I can't get her to do what I ask her to."
   Resident H: "Let me give you a handout on getting your kids to follow your rules."

5. Offered a **mental** health referral (M)

   Example of M by resident:

   Parent Q: "What should I do about her skipping school?"
   Resident M: "Let me get you an appointment with one of the psychologists here." (or any comment indicating a psychological consultation, referral to Behavior Clinic or ADHD clinic)

6. Offered a **prescription** (P)

   Example of P by resident:

   Parent C: "He's so hyper."
   Resident P: "Let's give him a trial of Adderall."

Ignored the question or comment by parent (I)

Example of I by resident:

Parent C: "I can't get him to stop swearing."
Resident I: "How are his grades?" (or any other comment or question that does not address the parent's comment)

APPENDIX C: PEDIATRIC SYMPTOM CHECKLIST

Please mark under the heading that best fits your child. For statements that are **NEVER** true about your child, circle 0. For statements that are **SOMETIMES** true about your child, circle 1. For statements that are **OFTEN** true about your child, circle 2.

0 = NEVER 1 = SOMETIMES 2 = OFTEN

0	1	2	1. Complains of aches or pains
0	1	2	2. Spends more time alone
0	1	2	3. Tires easily, little energy
0	1	2	4. Fidgety, unable to sit still
0	1	2	5. Has trouble with a teacher
0	1	2	6. Less interested in school
0	1	2	7. Acts as if driven by a motor
0	1	2	8. Daydreams too much
0	1	2	9. Distracted easily
0	1	2	10. Is afraid of new situations
0	1	2	11. Feels sad, unhappy
0	1	2	12. Is irritable, angry
0	1	2	13. Feels hopeless
0	1	2	14. Has trouble concentrating
0	1	2	15. Less interest in friends
0	1	2	16. Fights with other children
0	1	2	17. Absent from school
0	1	2	18. School grades dropping
0	1	2	19. Is down on him or herself
0	1	2	20. Visits doctor with doctor finding nothing wrong
0	1	2	21. Has trouble with sleeping
0	1	2	22. Worries a lot
0	1	2	23. Wants to be with you more than before
0	1	2	24. Feels he or she is bad
0	1	2	25. Takes unnecessary risks
0	1	2	26. Gets hurt frequently
0	1	2	27. Seems to be having less fun
0	1	2	28. Acts younger than children his or her age
0	1	2	29. Does not listen to rules
0	1	2	30. Does not show feelings
0	1	2	31. Does not understand other people's feelings
0	1	2	32. Teases others
0	1	2	33. Blames others
0	1	2	34. Takes things that do not belong to him or her
0	1	2	35. Refuses to share

APPENDIX D: PEDIATRIC SATISFACTION QUESTIONNAIRE (PSQ)

We are interested in learning how you feel about your visit today with your child's doctor. We hope to learn how our services might be improved. Your opinions about your visit are important to use. Your answers are confidential. Your doctor will not see your answers. If you have any questions, please ask the person who gave you this form. When answering each item, keep in mind how you feel about today's visit.

EXAMPLE: Circle the number that best describes how much you agree or disagree with the statement about today's visit.

The doctor's office looked clean.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

1. After talking with the doctor, I know what to expect about my child's health over the next few weeks and months.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

2. I feel I understand pretty well the doctor's plan for helping my child.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

3. The doctor gave me a chance to say what was really on my mind.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

4. I really felt understood by my doctor.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

5. I felt free to talk to the doctor about private concerns.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

6. I felt the doctor accepted me as a person.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

GO ON TO THE NEXT PAGE

7. I felt that the doctor didn't take my problems very seriously.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

8. This doctor was not friendly to me.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

9. The doctor I saw today would be someone I would trust with my child's life.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

10. The doctor gave my child a good checkup.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

11. The doctor was too rough when he/she examined my child.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

12. The doctor looked into all problems I mentioned.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

13. I feel the doctor did not spend enough time with me.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

14. The doctor seemed rushed during his/her examination of my child.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

15. The doctor gave directions too fast when he/she examined my child.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

16. The doctor seemed to know what he/she was doing during the examination.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

GO ON TO THE NEXT PAGE

17. The doctor understood my child's condition.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

18. The doctor was NOT very helpful about what to do for my child at home.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

19. The doctor answered all of my questions about my child.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

20. The doctor let me ask all of my questions.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly Agree

Thank you for your help.

From Finney, et al., (1990). Journal of Applied Behavior Analysis, 23, 207-213. Adapted from the Medical Interview Satisfaction Scale, Wolf, et al., (1978). Journal of Behavioral Medicine, 1, 391-401.

APPENDIX E: PARENT HANDOUTS

Handout #1: Teaching Your Child to Follow Rules

Many children do not follow rules set by their parents, teachers, babysitters, or other authority figures. Sometimes children do not follow rules because they do not understand the rules or do not know what the rules are. At other times children do not follow rules because they know they can get away with it – they know they will not be punished for breaking the rule. As a parent, there are a few simple things you can do to make sure that your child is not breaking the rules because he/she does not understand them, does not know what the rules are, or does not believe that he/she will not be punished for breaking the rules.

By setting some rules with your child, you may be able to decrease the frequency of behaviors like:

skipping school	**not following rules**
stealing	**fighting**
refusing to share	**teasing others**

Here are some tips for teaching your child to follow rules.

1. Tell your child what the rule is – pick 1 or 2 specific behaviors that you want your child to stop doing and tell him/her that from now on these behaviors will not be allowed – for example, if you want your child to stop fighting with other children then say to him/her, "the new rule is that you are not allowed to fight with other kids – if I catch you fighting with other kids, you will be punished."

2. Pick the punishment ahead of time – be very specific – tell your child <u>beforehand</u> what the punishment will be - once you have explained the new rule to your child, tell him/her what the punishment will be for breaking the rule– for example, say to your child, "the next time you fight with another child, you will have to go to bed 30 minutes early." Pick a punishment that you know your child hates – some examples are doing an extra chore, not getting to watch TV, not going outside, or not getting to play Nintendo – the important thing is *pick a punishment you know your child won't like* and *tell your child beforehand what the punishment will be*.

3. Now that you have explained the rule to your child and informed your child of what the punishment will be for breaking the rule, it is <u>extremely important</u> that you follow through with your decision to punish your child for breaking the rule. This means that <u>every time</u> your child breaks the rule, he/she will be punished. You may find it

difficult to punish your child every time, but it is very important that you do so if you want to teach your child to obey your rules. If you do not punish your child every time, then you teach him/her that sometimes rule-breaking is okay, and that sometimes he/she will not be punished for breaking the rule.

4. It is also very important to reward your child for following your new rule. When your child follows your rule, be sure to give praise and tell your child that you are proud of him/her. For example, if your child usually gets into a fight once a day, then reward him/her at the end of a day that a fight has not happened. Say to your child, "I'm glad you followed the new rule today. Let's make tomorrow another great day!"

Handout #2: Helping Your Child Cope with Fear and Anxiety

Most children experience fear of certain objects or situations (e.g., the dark, thunderstorms, being separated from a parent, taking tests) at some point during childhood. Parents play an important role in helping children manage normal childhood fears and anxiety. Listed below are strategies that you can use to help decrease your child's fear or anxiety. These strategies may be helpful in improving certain behaviors like:

fear of new situations
worrying
school fears
sleeping problems caused by fear
not wanting to be separated from you

1. Slowly expose your child to the feared situation. For example, if your child is afraid to sleep alone then leave the door open so he/she can hear other family members and feel reassured that he/she is not alone. Gradually pull the door closer to being shut each night.

2. Do not allow your child to completely avoid the situation. Feared situations cannot be mastered unless your child is exposed to the situation.

3. Prompt realistic thinking. Find out what your child thinks will happen if they are exposed to the feared situation and help them realize that these things will not happen. For example, a child who is afraid of swimming may think he/she is going to drown. Parents can prompt realistic thinking in this situation by calmly stating, "Remember that I'm here to watch you" or "You're wearing swimmies that keep you from going under."

4. Praise and encourage "brave" behaviors. Catch your child being brave and praise and reward. For example, if your child is afraid to ride his bike down the street without you, then praise him for riding around in the driveway and occasionally leaving the driveway. Encourage him to ride "just a bit farther" each time.

5. Set bravery goals with your child. For example, if your child is afraid that other children do not like him/her, then setting a goal of saying "hi" to a child he/she passes in the hall at school is a step in the right direction.

6. Reward brave behavior. When your child engages in brave behavior reward him/her with extra privileges (for example, staying up late) or activities (for example, going to the movies on Friday night).

7. Act brave yourself. Children learn a lot from watching how their parents act in stressful or negative situations. Avoid acting fearful or making negative statements about stressful situations so that your child learns that these situations can be handled without fear.

8. Empower your child. Do not communicate your own fears and worries to your child. Do communicate the belief that your child has the ability to master fears and that fear is something that can be faced and coped with. Children need to feel that their parents believe they are capable of handling stressful situations.

Handout #3: Managing Hyperactive and Inattentive Behavior

Many children experience difficulty with hyperactivity and inattention. The following strategies may be helpful in managing minor problems with hyperactivity and inattention. Some specific behaviors that you may want to improve include:

Fidgety, unable to sit still	**Has trouble concentrating**
Acts as if driven by a motor	**Gets hurt frequently**
Gets distracted easily	**Fights with other children**
Has trouble with sleeping	**Does not listen to rules**

1. Goals should be realistic. Parents should not expect to eliminate hyperactivity, but to keep it under reasonable control.

2. Hyperactive children need daily outside activities such as running, sports, or long walks. A fenced yard helps. In bad weather, the child needs a recreational room where he can do as he pleases without criticism.

3. Hyperactive behavior should not be encouraged in inappropriate settings. Parents should not allow roughhousing with these children. Siblings should be forbidden to say "chase me, chase me" or to instigate other noisy play with these children.

4. Home routines should be orderly and predictable. Routines help the hyperactive child accept order. Mealtimes, homework times and bedtimes should be kept as consistent as possible.

5. Fatigue should be avoided in these children. When they are exhausted, their self-control often breaks down and their hyperactivity becomes extreme.

6. Setting where the hyperactivity would be very inappropriate and embarrassing (e.g., church, formal gatherings) should be avoided. Excluding the child from unnecessary trips to stores and supermarkets can reduce friction between the parent and child. After the child develops adequate self-control at home, these situations can gradually be introduced.

7. These children need more careful discipline than the average child. Rules should be developed mainly to prevent harm to self or others. Aggressive behavior should be no more tolerated in the hyperactive child than in the normal child. Aggressive behavior should be consistently punished through the removal or privileges. Also, rules

to prevent the destruction of property should be in effect. Unnecessary rules should be avoided.

8. Rewarding non-hyperactive behavior is the key to preparing these children for school. Increased attention span and persistence with tasks can be taught to these children at home. Young children can be shown pictures in books, and if the child is attentive, he can be rewarded with praise. Next the parent can read stories to the child. Coloring of pictures can be rewarded and encouraged. Games of increasing difficulty can gradually be taught to the child, starting with building blocks and progressing eventually to card and dice games. The child's toys should not be excessive in number, for this can increase distractibility. They should also be safe and relatively unbreakable.

Handout #4: Improving Your Child's Mood

It is normal for children to experience sadness at different points in their life. Everyone experiences sadness in certain situations (for example, when receiving a bad grade on a report card or when not being picked for the team). However, some children experience sadness more frequently or with a greater intensity than is normal. The following strategies may be helpful in improving your child's sad mood. Specifically, these strategies may help improve behaviors you have noticed in your child like:

Spends more time alone
Feels sad
School grades dropping
Has trouble with sleeping
Seems to be having less fun
Tires easily, has little energy
Less interest in friends
Is down on him/herself
Feels he/she is bad

1. Encourage your child to engage in his/her normal routine. Your child should attend school as usual and continue after-school activities as normal.

2. Help your child stay on a regular sleep schedule. Your child should be in bed the same time every night and should get up at the same time every morning. This will prevent your child from developing an unhealthy sleeping routine like staying up too late at night and falling asleep during the day. Make activities that happen the hour before bedtime very calm activities like reading or taking a bath. Avoid activities that cause excitement like roughhousing or playing video games.

3. Increase the amount of pleasant activities your child engages in. This means that you may have to schedule fun activities for your child, like trips to the movies or bike riding. Encourage and reward your child for engaging in these activities. Your child may not enjoy these activities as much as he/she used to, and therefore you may need to offer extra praise/rewards for engaging in these activities.

4. Schedule times when friends/cousins can come over to play with your child. Create activities for the children to engage in before the friends come over.

5. Encourage physical activity or exercise. Children frequently find activities that require very little physical exertion to be the most fun (for example, watching TV or playing Nintendo). Make watching TV and playing video games contingent upon engaging in some form of

exercise (for example, playing ball, riding bikes, running, swimming). Engaging in physical activity has been shown to improve mood.

6. Listen to your child. If your child is making negative statements about him/herself, you should address these and remind your child of all his/her positive qualities.

7. If these strategies do not improve your child's mood within a reasonable amount of time (approximately 2 weeks), seek help from a professional (for example, a school counselor or your child's pediatrician). Do not allow the problem to worsen. Also, seek help immediately if your child makes statements about wanting to die or hurt him/herself or others. This may be a sign of a more serious problem (for example, clinical depression) which needs to be evaluated and treated by a professional.

Handout #5: Managing School Problems

Some children have difficulty following rules at school. Parents are frequently frustrated by this situation because they have very little control of their child's behavior while the child is at school. One way to increase the control you have over your child's school behavior is through the use of a school-home note. School-home notes can be used to improve behaviors like:

Has trouble with a teacher **School grades dropping**
Not following teacher instructions **Absent from school**
Fighting with other children

Steps to using a school-home note:

1. Parent-Teacher Conference: plan a time to sit down with the teacher and discuss exactly what behaviors are unacceptable. List out 3 or 4 behaviors that you would like to see improve. Be very specific (for example, stays in seat, completes classwork assignments, follows instructions when asked the first time). The behaviors chosen should be relevant to important classroom behavior such as work completion.

2. Set small goals: Start with small goals that will be easy for your child to achieve. Gradually increase the amount of desirable behavior necessary to achieve rewards. For example, instead of listing "completed classwork" as the behavior, evaluate whether classwork was completed in each subject.

3. Design the school-home note: Using a blank piece of paper, create a school-home note that has a place for the child's name, the date, and the teacher's signature. The target behaviors should be stated clearly with a space on the side for the teacher to check whether or not the behavior occurred.

4. Establish responsibilities: The teacher should keep blank copies of the school-home note that can be checked off at the end of the day and given to your child. It is your child's responsibility to bring the note home everyday. It is your responsibility to ask the child to see the note everyday and provide the proper rewards or consequences.

5. Collect baseline: For approximately 1 week before using the reward-consequence procedure, have the teacher complete the note each day. This will let both you and the teacher know how the child is performing in school, and will help in setting up the specific target behaviors and determining small goals for earning rewards.

6. Set up rewards: With your child's help, decide on a rewards which the child can choose from when a good school-home note is brought home. It should be very clear to the child exactly what must be done in order to receive rewards. Praise should always accompany rewards. Some examples of daily rewards include a late bedtime, extra TV time, extra Nintendo time, and playing outside longer. Some examples of weekly rewards include having lunch at McDonald's, buying a small toy, or a trip to the park or swimming pool.
7. Provide promised consequences: It is very important to follow through with the promised consequences each time your child brings home a school-home note that meets the daily goal for a reward. If the child fails to meet the daily goal or does not bring the school-home note home, the rewards are simply not given.

8. Fade the note when behavior improves: when behavior improves to appropriate levels, the school-home note should be faded out. A good way to do this is to shift to a weekly note. With a weekly note the teacher rates the child for the entire week and the child can earn a full week's consequences. If the weekly system is successful for a few weeks, the child should be able to earn going off the system entirely (but should still receive the rewards. If the behavior worsens, go back to the weekly note.

APPENDIX F: BEHAVIORAL CLUSTERS OF PSC ITEMS

Attention/Hyperactivity Problems Problems

4) Fidgety, unable to sit still

5) Has trouble with a teacher
7) Acts as if driven by a motor
9) Distracted easily
14) Has trouble concentrating
21) Has trouble with sleeping
25) Takes unnecessary risks
26) Gets hurt frequently
28) Acts younger than children his or her age
29) Does not listen to rule

Oppositional/Defiant

5) Has trouble with a teacher
16) Fights with other children
17) Absent from school
25) Takes unnecessary risks
29) Does not listen to rule
30) Does not show feelings
16) Fights with other children
31) Does not understand
32) Teases others
33) Blamesotherfor his/her troubles
34) Takes things that do not belong to him or her
35) Refuses to share

Anxiety Problems

1) Complains of aches or pains
4) Fidgety, unable to sit still
10) Afraid of new situations
14) Has trouble concentrating
20) Visits MD with nothing wrong
21) Has trouble with sleeping
22) Worries a lot
23) Wants to be with you more than before

Mood Problems

2) Spends more time alone
3) Tires easily, little energy
11) Feels sad
14) Has trouble concentrating
15) Less interest in friends
18) School grades dropping
19) Is down on him/herself
20) Visits MD with nothing wrong
21) Has trouble with sleeping
24) Feels he/she is bad
27) Seems to be having less fun

School Problems

5) Has trouble with a teacher
6) Less interested in school
17) Absent from school
18) School grades dropping

APPENDIX G: PATIENT DEMOGRAPHICS

Patient Information

Participant #: _____ Gender: _____ Race: _____
DOB: ____

Grade in school: _____ Receive special education services? Y N

Was the child ever held back in a grade? yes no

Caretaker Information

Relationship to patient of adult attending appointment: _____

Marital Status: (circle one) married divorced
widowed never married
other: _____

Race: _____ Gender: _____ Age: _____

Education: What is the highest level of education completed?
_____ 8th grade or less
_____ some high school (or currently attending)
_____ graduated high school
_____ received GED
_____ graduated from vocational training
_____ some college (or currently attending)
_____ graduated from 4-year college
_____ graduate degree

Occupation: _____ Hours/Week: _____

Who lives with the patient?

Name	Relationship to patient	Age

Appointment Information

Reason for visit: _____ Appointment length: _____

APPENDIX H: TRANSCRIPTION SHEET

Pediatric Resident Subject #: _____
Patient Subject #: _____

Questions/comments by resident regarding behavioral/emotional issues:

1. _____
2. _____
3. _____
4. _____
5. _____

Responses by caretaker:

1. _____
2. _____
3. _____
4. _____
5. _____

Questions/comments by caretaker regarding behavioral/emotional issues:

1. _____
2. _____
3. _____
4. _____
5. _____

Responses by resident:

1. _____
2. _____
3. _____
4. _____
5. _____

APPENDIX I: CONTENT CHECKLIST

NOTE: Topics are recorded in this section for the first time they occur during the exam. Use "p" to denote parent initiated topic and "r" for resident initiated topic. For example, if the issue of completing homework came up 2 or 3 times during the exam, it would be appropriately noted under the questions section each time, but only noted the FIRST TIME under the Behavioral and Emotional Problems Content Checklist.

Attention Problems
___ Distracted easily *
___ Trouble concentrating *
___ Forgets things quickly
___ _____
___ _____
___ _____

Hyperactivity Problems
___ Fidgety, unable to sit still *
___ Acts as if driven by a motor *
___ Doesn't seem to need sleep
___ Runs around constantly
___ _____
___ _____

Oppositional/Defiant Problems
___ Fights with other children *
___ Takes unnecessary risks *
___ Does not listen to rules *
___ Does not understand other's *
___ Teases others *
___ Blames others *
___ Takes others' belongings *
___ Refuses to share *
___ Lies
___ Temper tantrums
___ _____
___ _____

Mood Problems
___ Spends more time alone *
___ Tires easily, little energy *
___ Feels sad *
___ Less interest in friends *
___ Is down on him/herself *
___Visits MD with nothing wrong *
___ Feels he/she is bad *
___ Seems to be having less fun *
___ _____
___ _____
___ _____

School Problems
___ Has trouble with a teacher *
___ Absent from school *
___ School grades dropping *
___ Gets into fights at school
___ Does not complete homework *
___ Has poor grades
___ _____

Anxiety Problems
___ Afraid of new situations *
___ Worries a lot *
___ Wants to be with you a lot
___ Fears certain objects/situations
___ _____
___ _____
___ _____

Other PSC Items

___ Complains of aches or pains *
___ Has trouble with sleeping * ___ Does not show feelings *
___ Gets hurt frequently *
___ Acts younger than children his age *

* Denotes items from PSC

APPENDIX J: DEFINITIONS FOR CONTENT CHECKLIST

* Indicates items from the PSC

Attention Problems

* Distracted easily – any discussion of the child being distracted from one activity to another; or becoming distracted while engaging in an activity

* Trouble concentrating – any discussion that indicates that the parent thinks that the child has difficulty engaging in tasks because he/she cannot concentrate on the activity (e.g., loses his/her place while reading).

Forgets things quickly – any discussion of the child forgetting things that were just discussed or forgetting parts of instructions in a series (e.g., forgets the second part of an instruction given by the parent).

Other – any discussion of attention problems that does not fit with the categories above.

Hyperactivity Problems

* Fidgety, unable to sit still – any discussion involving the child not sitting still, not staying in his or her seat, or shifting around a lot while sitting.

* Acts as if driven by a motor – any discussion of needing to be constantly "on the go" or never getting tired or always wanting to be active, or constantly moving, jumping up and down, etc…

Doesn't seem to need sleep – any discussion of being unable to get the child to fall asleep at night, or not needing much sleep (e.g., only 4 hours), or getting up early after a late night, etc…

Runs around constantly – any discussion of the child running excessively, either outside or through the house, or in public places, such as grocery stores, etc…

Other – any discussion indicating the child is hyperactive that does not fall into the above categories

Oppositional/Defiant Problems

* Fights with other children – any discussion involving physical aggression or violence to other children, older or younger, that involves hitting, kicking, biting, pushing, etc…

* Takes unnecessary risks – any discussion of risky behavior by the child, like climbing up on things, running into the street without looking, playing with dangerous items, etc…

* Does not listen to rules – any discussion of the child refusing to obey authority figures or rules; refusing to follow instructions, etc…

* Does not understand other's feelings – any discussion of the child not caring about hurting other people's feelings, or hurting people physically; discussions indicating the child has a lack of empathy for others.

* Teases others – any discussion about the child name-calling others or saying negative things to others, making fun of others, or imitating others in a disparaging way.

* Blames others – any discussion indicating that the child denies wrongdoing when proof is available that the child is the guilty party; discussions involving excessive scapegoating or rationalizing of the behavior (e.g., "he made me do it!")

* Takes others' belongings – any discussion indicating the child steals from parents, siblings, friends or strangers; any discussion involving suspicion on the parent's part that the child steals (e.g., child has possession of something the parent did not buy and which the child cannot adequately explain how he/she came to possess the item).

* Refuses to share – any discussion involving the child becoming upset when asked to share; or being very selfish or possessive of items.

Lies – any discussion involving the child having been caught in lies; examples given by the parent of the child's lies.

Temper tantrums – any discussion involving the child crying loudly or complaining continuously or yelling when either given an instruction or denied his/her own way; may involve

screaming or slamming doors or throwing oneself on the floor.

Other - any discussion indicating the child is oppositional or defiant that does not fall into the above categories.

Mood Problems

* Spends more time alone – any discussion indicating that the child prefers being alone, particularly in the context of a child who used to prefer social company; any indication of the child declining invitations to social activities.

* Tires easily, little energy – any discussion indicating that the child gets tired too quickly, particularly if a good night's sleep was achieved; may include sleeping at school or excessive napping or complaints by the child or being tired.

* Feels sad – any discussion indicating that the parent believes the child is said, or indicates that the child has sad he/she is sad; any discussion in which the parent said the child looks more sad than before.

* Less interest in friends – any discussion indicating that the child no longer wants to engage in activities with friends, outside of having been in a fight with friends or no longer friends with the same people; declining invitations of friends.

* Is down on him/herself – any discussion indicating that the child has made negative comments about himself (e.g., "nobody likes me," "I always do it wrong") or any discussion in which the parent gives examples or such comments.

* Visits MD with nothing wrong – any discussion indicating that there is no physical cause for the child's medical symptoms.

* Feels he/she is bad – any discussion indicating that the child is afraid of doing or saying something bad or believes he/she is bad.

* Seems to be having less fun – any discussion about the child taking less pleasure out of activities he used to enjoy; any discussion of not enjoying activities.

Other - any discussion indicating the child has mood problems that do not fall into the above categories.

School Problems

* Has trouble with a teacher – any discussion indicating that a teacher has called home to talk with a parent about a child's behavior or has sent a note home; any discussions of suspensions by a teacher for classroom behavior, or being sent to the principal's office for classroom behavior.

* Absent from school – any discussion indicating that the child has missed excessive school days, unrelated to medical problems; skipping school; leaving school early without permission; school refusal.

* School grades dropping – any discussion indicating that the child's grades are declining or have declined recently; grades dropping from last report card or progress report.

Gets into fights at school – any discussion involving the child physically fighting with other children on school property, or on the bus or at the bus stop.

* Does not complete homework – any discussion involving the child refusing to do homework or failing to turn homework in to the teacher; or discussions involving partial completion of homework.

Poor grades – any discussion indicating that the child makes poor grades and habitually makes poor grades; discussions indicating that the parent is displeased with the child's grades.

Other - any discussion indicating the child has school problems that do not fall into the above categories.

Anxiety Problems

* Afraid of new situations – any discussion indicating that the child is excessively fearful of new situations or places; any indication that the child avoids or becomes upset in these situations; or tolerates these situations with fear

* Worries a lot – any discussion indicating that the child worries a great deal about certain things; any indication that the child needs constant reassurance about certain things

* Wants to be with you a lot – any discussion indicating that the child does not want to let the parent out of sight or becomes upset when left alone

Fears certain situations/objects – any discussion indicating that the child has an abnormal fear of some things; for example, terrified of thunder storms or will not sleep in his or her own room because of monsters; fears must be beyond normal developmental stages.

Other - any discussion indicating the child has problems with anxiety that do not fall into the above categories.

Other PSC Items

* Has trouble with sleeping – any discussion indicating that the child has sleep problems; either falling asleep, staying in bed, snoring, nightmares, sleepwalking, etc…

* Gets hurt frequently – any discussion indicating that the child is accident prone or excessively clumsy; trips or falls frequently; multiple injuries from accidents.

* Acts younger than children his/her age – any discussion indicating that the child is less mature than most peers his/her age; indications that child acts like a baby or cries too easily for his/her age; indications of social immaturity.

* Does not show feelings – any discussion that the child keeps his/her feelings to him/herself; indications that the child does not talk about his/her feelings.

* Complains of aches or pains – any discussion indicating that the child complains about aches or pains without obvious cause (e.g., frequent headaches or stomachaches); does not include complaints related to injuries.

APPENDIX K: PARENT/LEGAL GUARDIAN CONSENT FORM

1. **Study title:** "Communication between parents and pediatric residents and parental satisfaction with pediatric clinic visits."

2. **Performance sites:** Parents and pediatric residents will be recruited on a voluntary basis from outpatient hospital pediatric clinics at Earl K. Long Medical Center, Baton Rouge, Louisiana.

3. **Names and telephone numbers of investigators:**

   Heather Applegate, M.A.....(601) 984-5878
   Mary Lou Kelley, Ph.D.....(225) 358-1398

4. **Purpose of the study:** This is a research study that is interested in communication between pediatric residents' (doctors) and parents during pediatric clinic visits and parents' satisfaction with their children's appointments. Parents of children between the ages of 6 and 16 will be audiotaped during their clinic visit with a pediatric resident. Pediatric residents (doctors) will also serve as participants in this study. With the exception of parents being asked to allow audiotaping of their child's appointments and to complete brief forms, no changes will be made to patients' clinic appointments. Information that we will get from you will include information regarding any behavioral or emotional problems your child has, including disobedience, hyperactivity, school problems, anxiety and depression. We will also gather information regarding how satisfied you were with your child's appointment with the pediatric resident (doctor). We will not gather any information from your child or ask your child to complete any measures. This study will examine communication between parents and pediatric residents (doctors) and parent satisfaction with their children's appointments.

5. **Description of the study:** Parents of children ages 6-16 will be recruited from waiting rooms of outpatient hospital clinics at Earl K. Long Medical Center. To participate in the study we will need to audiotape you and your child during the clinic visit (that is, your voices will be recorded while you are talking with the doctor in the exam room). We will ask you (the parent) to complete 2 forms, one before your visit with the doctor and one after your visit with the doctor. We know from past experience that it will take you approximately 15 minutes to complete both forms. You will complete both forms privately (that is, behind a

curtained cubicle). We will ask you to complete one form (called the Pediatric Symptom Checklist) about any behavior problems your child may have (including disobedience and school problems), and symptoms of depression, anxiety and hyperactivity. Previous experience using this form with parents similar to you shows that this measure takes parents approximately 5 minutes to complete. We suggest that you do not show your child what you are writing about him/her so as to avoid potentially upsetting him/her. After you have completed this form, you will give it to the researcher who will make it available to the pediatric resident (doctor) before you and your child enter the exam room. This means that the pediatric resident (doctor) may or may not decide to ask you questions about your answers. Your child's visit with the pediatric resident (doctor) will be audiotaped. At the conclusion of the appointment, you will be asked to complete one additional form that asks you how satisfied you were with your child's clinic visit. Most parents complete this form in 10 minutes or less. You and your child will have no further obligations after you complete this form. If you or your child becomes upset about the questions that are asked, a trained clinician will be present during all data collection to help you. If you want help immediately, we can go to a private room to discuss the worries that you or your child has. If you would like to be seen by a clinician at a later time, we can make an appointment for you with the pediatric psychology service at Earl K. Long Medical Center (treatment will be provided at no charge) or, if you prefer, the we can give you a referral card to a local mental health agency. Additionally, the person collecting data will look at the questions that you answered, and if we believe that the child is in significant psychological distress, we will discuss this with you and provide immediate services. Pediatric residents (doctors) will also be asked to participate in the study. They will be informed that it will be necessary to audiotape their patient appointments.

6. **Benefit to Subjects:** There is no direct benefit to participants. Future parents/legal guardians and their children may benefit from the findings of this study by experiencing improved communication between doctors and parents about children's behavioral and emotional functioning.

7. **Risks to Subjects:** There are no known <u>physical</u> risks to parents/legal guardians/children or pediatric residents associated with participation in this study. One possible psychological risk is that your child may become upset because

he/she knows that you are completing forms about his/her behavior. Trained clinicians will be present during all data collection, so if you or your child experience sadness or worry because of the measures you are completing, immediately inform the person collecting data. We will provide help immediately, make an appointment with you, or refer you to a local agency that helps families with children who have behavior or emotional problems. Parents should not expect their child's medical condition to improve based on participation in this study**.**

8. **Alternatives to participation in the study:** Participation is voluntary. Parents/legal guardians and children who choose not to participate in the study will attend their office visit as usual. Parents may choose not to participate in the study without penalty. Parents and children will continue to receive services from LSUHSC if they choose not to participate. If a parent chooses not to participate in the study but would like an evaluation of their child's behavior problems or emotional problems we will refer them to a local mental health agency or schedule an appointment with the pediatric psychology service at LSUHSC.

9. **Subject removal:** Participants may be removed from the study without their consent if they fail to complete all forms or if the audiotaping of the appointment fails.

10. **Subject's rights to refuse to participate or withdraw:** Parents/legal guardians and their children may refuse to participate or withdraw from the study at any time without jeopardizing, in any way, their medical care at clinic appointments in the present or future. Should significant new findings develop during the course of the research that may relate to a subject's willingness to continue participation, that information will be provided to the subject.

11. **Subject's right to privacy:** The results of this study may be published or presented in a scholarly fashion. The results of this study may be released to the LSUHSC Department of Psychiatry and the LSU Baton Rouge Department of Psychology. The privacy and confidentiality of subjects and participants will be protected, and they will not be identified in any way through the use of a code that cannot be matched to their names, medical record identification numbers, or in any other fashion (anonymous data).

12. **Release of information:** Audiotapes of pediatric residents' clinic appointments with patients age 6-16 and their caregivers are available to the researchers. By agreeing to participate in this research study and by signing the consent form, the parents/legal guardians give permission for their clinic appointments to be audiotaped. The medical records related to the study are available to both the sponsoring agency, the Food and Drug Administration, and LSUHSC IRB. While every effort will be made to maintain your privacy, absolute confidentiality cannot be guaranteed. Records will be kept private to the extent allowed by law.

13. **Financial information:** Participation in this study will not result in any financial charges to subjects. Participants will not incur any charges in addition to those typical of clinic appointments.

14. **Signatures:** The study has been discussed with me and all my questions have been answered. I understand that additional questions regarding this study should be directed to the investigators listed on page 1 of the consent form. I understand that if I have questions about subjects' rights, or other concerns, I can contact the Chancellor of LSU Health Sciences Center, at (504) 568-4801. I agree with the terms above, acknowledge I have been given a copy of the consent form, and agree to participate in the study. I understand that I have not waived any of my legal rights by signing this form.

_____ _____

Signature of Subject (Parent/Legal Guardian) Date

_____ _____

Signature of Witness Date

This study subject has indicated to me that the subject is unable to read. I certify that I have read this consent form to the subject and explained that by completing the signature line above the subject has agreed to participate.

_____ _____

Signature of Reader Date

_____ _____

Signature of Person Administering Consent Date

_____ _____

Signature of Principal Investigator Date

PEDIATRIC RESIDENT CONSENT FORM

1. **Study title**: "Communication between parents and pediatric residents and its relationship to parent satisfaction with pediatric clinic visits."

2. **Performance sites:** Parents and pediatric residents will be recruited on a voluntary basis from outpatient hospital clinics at Earl K. Long Medical Center, Baton Rouge, Louisiana.

3. **Names and telephone numbers of investigators:**

   Heather Applegate, M.A.....(601) 984-5878
   Mary Lou Kelley, Ph.D.....(225) 358-1398

4. **Purpose of the study:** This is a research study that is interested in communication between pediatric residents' and parents during pediatric clinic visits and parents' satisfaction with their children's appointments. Parents of children between the ages of 6 and 16 will be audiotaped during their clinic visit with a pediatric resident. Pediatric residents will also serve as participants in this study. Information that we will gather from pediatric residents will include prior medical training experience and audiotapes of their clinic visits with their patients (with the approval of the children's parents). We will use the discussions that occur in the exam room to examine the interaction between parents and pediatric residents. Parents will be asked to complete measures of behavioral and emotional functioning of their children, as well as a patient satisfaction questionnaire. As a participant, you may have access to the measure evaluating the child's behavioral and emotional functioning before you enter the exam room. You will be trained regarding how to score and interpret the measure. You may have access to handouts to give to parents regarding strategies that can be used to treat behavioral and emotional difficulties in children.

5. **Description of the study:** Pediatric residents will be recruited from the pediatric rotation at Earl K. Long Medical Center. To participate in the study we will need to audiotape your visit with your patient (that is, your voices will be recorded while you are talking with the patient and the patient's parent in the exam room). You may or may not be given access to measures completed by the parent regarding their child's behavioral and emotional functioning before you enter the exam room. If you are given access to this measure, you may choose to discuss the results with the parents. You are under no obligation to

discuss the results with parents. Parents will be aware that you may have access to the measure and may decide to ask you questions about the measure. Your responses to their questions are solely up to you. No aspect of this study will interfere with the delivery of your services to the patient in any way.

6. **Benefit to Subjects:** There is no direct benefit to participants. Future pediatric residents may benefit from receiving information regarding parental satisfaction with their children's appointments, and with information on how to improve their interactions with parents regarding child behavioral and emotional issues.

7. **Risks to Subjects:** There are no known <u>physical</u> risks to pediatric residents associated with participation in this study. One possible psychological risk is that you may become uncomfortable when completing forms about the knowledge you have gained regarding the training you will receive in this study. You may become upset at the idea that your performance in the study is being evaluated.

8. **Alternatives to participation in the study:** Participation is voluntary. If you choose not to participate in this study but wish to learn about the assessment of behavioral and emotional functioning in children, we will direct you to the psychology service at Earl K. Long Medical Center to talk with a trained clinician.

9. **Subject removal:** Participants may be removed from the study without their consent if the audiotaping of the session fails for any reason (e.g., technical failure of the equipment).

10. **Subject's rights to refuse to participate or withdraw:** Pediatric residents may refuse to participate or withdraw from the study at any time without jeopardizing, in any way, their performance evaluations during their pediatric rotation. Should significant new findings develop during the course of the research that may relate to a subject's willingness to continue participation, that information will be provided to the subject.

11. **Subject's right to privacy:** The results of this study may be published or presented in a scholarly fashion. The results of this study may be released to the LSUHSC Department of Psychiatry and the LSU Baton Rouge Department of Psychology. The privacy and confidentiality of subjects and participants will

be protected, and they will not be identified in any way through the use of a code that cannot be matched to their names, medical record identification numbers, or in any other fashion (anonymous data).

12. **Release of information:** Audiotapes of pediatric residents' clinic appointments with patients age 6-16 and their caregivers are available to the researchers. By agreeing to participate in this research study and by signing the consent form, the pediatric residents give permission for their clinic appointments to be audiotaped. The medical records related to the study are available to both the sponsoring agency, the Food and Drug Administration, and LSUHSC IRB. While every effort will be made to maintain your privacy, absolute confidentiality cannot be guaranteed. Records will be kept private to the extent allowed by law.

13. **Financial information:** Participation in this study will not result in any financial charges to subjects. Participants will not incur any charges in addition to those typical of clinic appointments.

14. **Signatures:** The study has been discussed with me and all my questions have been answered. I understand that additional questions regarding this study should be directed to the investigators listed on page 1 of the consent form. I understand that if I have questions about subjects' rights, or other concerns, I can contact the Chancellor of LSU Health Sciences Center, at (504) 568-4801. I agree with the terms above, acknowledge I have been given a copy of the consent form, and agree to participate in the study. I understand that I have not waived any of my legal rights by signing this form.

_____ _____

Signature of Pediatric Resident Date

_____ _____

Signature of Witness Date

_____ _____

Signature of Person Administering Consent Date

_____ _____

Signature of Principal Investigator Date

CHILD ASSENT FORM

I agree to be in a study in which the people doing the study will record my voice while I speak with my doctor. Also, I know that my parent will fill out questions about my behavior and emotions. If this makes me upset about my parent answering questions about me, I can say "NO" that I do not want to be in the study. I can decide to stop being in the study at any time without getting into trouble.

_____	_____	_____
Child's Name and Age	Child's Signature	Date

The study subject is a child and I certify that I am his/her legal guardian.

_____	_____	_____
Legal Guardian's Name	Legal Guardian's Signature	Date

APPENDIX L: PEDIATRIC RESIDENT TRAINING PROTOCOL

I. A multiple baseline design will be used. Six residents will participate in the study (3 pairs). The residents will be unaware of the design. Baseline data will be collected on each resident until stability of the baseline data is reached. Once stability of baseline is reached, one resident from each pair will be trained on the intervention. A minimum of 4 data points (4 different resident-parent interactions) will be used for baseline.

II. The resident from each pair receiving the intervention first will be trained on the protocol described below while the other residents continue baseline. Topics 1, 2, and 3 (see below) will be covered for the first intervention (PSC Training). A minimum of 4 data points (4 resident-parent interactions) will be used for the first intervention.

III. Once a trend in the data is established for the first intervention, the resident will be trained on the second intervention. Topic 4 (see below) will be covered for the second intervention (Handouts Training). A minimum of 4 data points (4 resident-parent interactions) will be used for the second intervention. It is also at this time that the residents who are still in the baseline phase will be trained on the first intervention.

IV. Each resident will be subjected to the above conditions in the standard multiple baselines format.

The following material is to be used to train the pediatric residents in the use of the PSC and handouts. The material in *italics* is to be said out loud to the resident to ensure uniformity of training. The **bolded** material is instructions for the trainer.

Topics to be covered:

1) American Academy of Pediatrics (1982) statement

"We are interested in educating young physicians on the importance of screening for emotional and behavioral problems in children. You may be aware of the American Academy of Pediatrics' stance on this issue… it is now widely recognized that one of the responsibilities of pediatricians is to screen for psychosocial disturbance in children and to provide some sort of follow-up recommendations or care."

2) Importance of behavioral and emotional screening - early detection/prevention

"One of the main reasons that it is important to screen for behavioral and emotional problems in children is because early detection can reduce the possibility of the problem becoming severe. Pediatricians have more contact with children than any other health-care professional, and so they are in a great position to detect behavioral and emotional problems in kids before they become disabling. Another reason that behavioral screening is important is for prevention. Sometimes parents need to be reassured that a problem is normal (for example, it is normal for children to throw temper tantrums at times) or that they are handling an existing problem acceptably (for example, sending a child to his room for several minutes for having occasional temper tantrums). At other times, pediatricians can offer advice for behavioral problems that are not severe, but have potential to become worse over time (for example, a pre-teen who begins to "skip school.")

3) Use of the Pediatric Symptom Checklist – how it's scored, cutoff value

Give the pediatric resident a copy of the PSC to look at as it is being discussed. *"The PSC is a 35-item instrument that asks questions about potential behavioral or emotional problems that a child may be having. The instrument is to be completed by a parent or legal guardian about children between the ages of 6-12. Completing this instrument takes a parent approximately 5 minutes. For each statement, the parent circles either NEVER, SOMETIMES, or OFTEN. It takes approximately 2 minutes for the clinician to score the instrument. Items that are endorsed as NEVER are worth 0 points, items that are endorsed as SOMETIMES are worth 1 point, and items that are endorsed as OFTEN are worth 2 points. The total points for all items are added to give a total score of between 0 and 70. Research shows that for children ages 6-12, a total score of up to 27 is normal… scores of 28 or higher are suggestive of a problem that needs follow-up of some sort (e.g., asking follow-up questions to the parents, making suggestions for how to handle the problem, suggesting a mental health referral). The physician can also ask parents about individual items that were endorsed if he/she thinks it is important, even if the total score is below 28. Do you have any questions about how the PSC is used or scored?"* **Allow the pediatric resident to ask questions. Once all questions are asked, have the pediatric resident complete the questionnaire titled "Screening for Behavioral and Emotional Problems in Children." This questionnaire is designed for treatment integrity. Once the resident has completed this questionnaire, check to see if the resident got all of the**

questions correct. Discuss any answers that were not correct and provide the resident with the correct answers.

4) Treatment options – guidance, reassurance, referral, handouts

"Since PSC scores of 28 or higher are suggestive of some type of psychological disturbance it is a good idea to ask follow-up questions, particularly about items that were endorsed as OFTEN. It may be necessary to make some suggestions about things the parent can try to eliminate the problem. We would like to provide you with handouts that can be given to parents regarding some common types of behavioral and emotional problems that kids display. The handouts are designed to match clusters of behaviors from the PSC. PSC items can be divided into one of 5 clusters of behavior **(give the resident a copy of the handout titled "Breakdown of PSC Items into Behavioral Clusters")***: 1) attention/hyperactivity problems, 2) oppositional/defiant problems, 3) anxiety problems, 4) mood problems, and 5) school problems. Each handout is designed to tackle child behavioral problems from one of the clusters. We have found that most of the time it is helpful to go over the handout with the parents to ensure that they understand the material* **(give the resident a copy of the parent handouts, which are 5 separate handouts designed to target the behavioral clusters of the PSC). Read each handout to the pediatric resident.** *"Do you have any questions about these handouts? If you look carefully, you will see that each handout addresses specific items from the PSC."* **Answer any questions that the pediatric resident may ask about the handouts.**

APPENDIX M: PSC TRAINING QUESTIONNAIRE FOR RESIDENTS

Directions: Please provide the best answer(s) for the following questions.

1. The American Academy of Pediatrics has officially recognized that one of the responsibilities of pediatricians is to screen for behavioral/emotional problems in children.

   TRUE FALSE

2. Children have more contact with school nurses than with any other health care professional.

   TRUE FALSE

3. Please list 3 reasons why it is important to screen for behavioral/emotional problems in children.

   1. _____
   2. _____
   3. _____

4. The Pediatric Symptom Checklist is completed by the parent about the child's behavior.

   TRUE FALSE

5. When using the Pediatric Symptom Checklist, how many points is circling SOMETIMES worth?

   ZERO ONE TWO

6. How many points is NEVER worth?

   ZERO ONE TWO

7. How many points is OFTEN?

   ZERO ONE TWO

8. The maximum number of points that can be scored on the Pediatric Symptom Checklist is 68.

TRUE FALSE

9. What is the cutoff score for the Pediatric Symptom Checklist that is suggestive of the child having significant behavioral/emotional problems?

ANSWER: _____

10. Please look at the attached sample Pediatric Symptom Checklist (see next page). This is an example of the checklist completed by a parent. What is the total score for this sample checklist?

ANSWER: _____

Answer Key:

1. True
2. False (pediatricians)
3. Early detection of problems so they don't become worse; prevention of problems altogether; reassurance of developmentally normal behavior
4. True
5. One
6. Zero
7. Two
8. False (70)
9. 28
10. 19

Sample
The Pediatric Symptom Checklist

Please mark under the heading that best fits your child. For statements that are **NEVER** true about your child, circle 0. For statements that are **SOMETIMES** true about your child, circle 1. For statements that are **OFTEN** true about your child, circle 2.

0	1	2	1. Complains of aches or pains
0	1	2	2. Spends more time alone
0	1	2	3. Tires easily, little energy
0	1	2	4. Fidgety, unable to sit still
0	1	2	5. Has trouble with a teacher
0	1	2	6. Less interested in school
0	1	2	7. Acts as if driven by a motor
0	1	2	8. Daydreams too much
0	1	2	9. Distracted easily
0	1	2	10. Is afraid of new situations
0	1	2	11. Feels sad, unhappy
0	1	2	12. Is irritable, angry
0	1	2	13. Feels hopeless
0	1	2	14. Has trouble concentrating
0	1	2	15. Less interest in friends
0	1	2	16. Fights with other children
0	1	2	17. Absent from school
0	1	2	18. School grades dropping
0	1	2	19. Is down on him or herself
0	1	2	20. Visits doctor with doctor finding nothing wrong
0	1	2	21. Has trouble with sleeping
0	1	2	22. Worries a lot
0	1	2	23. Wants to be with you more than before
0	1	2	24. Feels he or she is bad
0	1	2	25. Takes unnecessary risks
0	1	2	26. Gets hurt frequently
0	1	2	27. Seems to be having less fun
0	1	2	28. Acts younger than children his or her age
0	1	2	29. Does not listen to rules
0	1	2	30. Does not show feelings
0	1	2	31. Does not understand other people's feelings
0	1	2	32. Teases others
0	1	2	33. Blames others
0	1	2	34. Takes things that do not belong to him or her
0	1	2	35. Refuses to share

APPENDIX N: HANDOUT TRAINING QUESTIONNAIRE

Directions: Please provide the best answer(s) for the following questions.

1. What are the 5 behavioral clusters that the Pediatric Symptom Checklist can be broken into?

    1. _____
    2. _____
    3. _____
    4. _____
    5. _____

2. Refer to the sample PSC that you previously scored. Looking at the items that were endorsed by the parent, which handout would be MOST appropriate?

    A. MANAGING HYPERACTIVE AND INATTENTIVE BEHAVIOR
    B. IMPROVING YOUR CHILD'S MOOD
    C. HELPING YOUR CHILD COPE WITH FEAR AND ANXIETY
    D. TEACHING YOUR CHILD TO FOLLOW RULES
    E. MANAGING SCHOOL PROBLEMS

3. What other handout may be helpful to this parent?

    A. MANAGING HYPERACTIVE AND INATTENTIVE BEHAVIOR
    B. IMPROVING YOUR CHILD'S MOOD
    C. HELPING YOUR CHILD COPE WITH FEAR AND ANXIETY
    D. TEACHING YOUR CHILD TO FOLLOW RULES
    E. MANAGING SCHOOL PROBLEMS

4. Which handout would be the most appropriate for a mother who reported on the PSC that her child is having trouble with a teacher, gets into fights at school, and has poor grades?

    A. MANAGING HYPERACTIVE AND INATTENTIVE BEHAVIOR
    B. IMPROVING YOUR CHILD'S MOOD
    C. HELPING YOUR CHILD COPE WITH FEAR AND ANXIETY
    D. TEACHING YOUR CHILD TO FOLLOW RULES
    E. MANAGING SCHOOL PROBLEMS

5. Which handout(s) would be the most appropriate for a mother who reported on the PSC that her child is showing less interest in friends, tires easily and has little energy, is down on herself, worries a lot, and is afraid of new situations?

    A. IMPROVING YOUR CHILD'S MOOD
    B. HELPING YOUR CHILD COPE WITH FEAR AND ANXIETY
    C. HANDOUT A AND HANDOUT B
    D. TEACHING YOUR CHILD TO FOLLOW RULES
    E. MANAGING SCHOOL PROBLEMS

6. Which handout(s) would be the most appropriate for a mother who reported on the PSC that her child is taking things that do not belong to him, does not listen to rules, and fights with other children?

    A. MANAGING SCHOOL PROBLEMS
    B. IMPROVING YOUR CHILD'S MOOD
    C. MANAGING INATTENTIVE AND HYPERACTIVE BEHAVIOR
    D. HANDOUT A AND HANDOUT C
    E. TEACHING YOUR CHILD TO FOLLOW RULES

7. Which handout(s) would be most appropriate for a mother who reported on the PSC that her child is fidgety and unable to sit still, easily distracted, and has trouble concentrating?

    A. MANAGING SCHOOL PROBLEMS
    B. TEACHING YOUR CHILD TO FOLLOW RULES
    C. MANAGING INATTENTIVE AND HYPERACTIVE BEHAVIOR
    D. HANDOUT B AND HANDOUT C
    E. IMPROVING YOUR CHILD'S MOOD

1. Attention/hyperactivity problems
   Oppositional/defiant problems
   Anxiety problems
   Mood problems
   School problems
2. B
3. D
4. E
5. C
6. E
7. C

APPENDIX O: FREQUENCIES OF INDIVIDUAL TARGET BEHAVIORS BY CONDITION

K.E.

	Baseline	PSC	PSC + H
Total Questions			
Initial Questions	3	22	24
Follow-up Questions	2	47	29
Comments	0	2	0
Interventions			
Offered the parent advice	0	0	4
Offered reassurance	0	0	1
Offered educational information	0	0	0
Offered a handout	0	0	1
Offered a mental health referral	0	0	0
Offered a prescription	0	0	0
Ignored	0	0	0

G.F.

	Baseline	PSC	PSC + H
Total Questions			
Initial Questions	10	16	20
Follow-up Questions	11	21	23
Comments	0	1	6
Interventions			
Offered parent advice	0	0	4
Offered reassurance	0	0	0
Offered educational information	0	0	0
Offered a handout	0	0	3
Offered a mental health referral	0	0	0
Offered a prescription	0	0	0
Ignored	0	0	0

J.G.

	Baseline	PSC	PSC + H
Total Questions			
Initial Questions	1	14	19
Follow-up Questions	0	12	19
Comments	0	2	1
Interventions			
Offered parent advice	0	0	2
Offered reassurance	0	0	1
Offered educational information	0	1	2
Offered a handout	0	0	3
Offered a mental	0	0	1
Offered a prescription	0	0	0
Ignored	0	0	0

B.S.

	Baseline	PSC	PSC + H
Total Questions			
Initial Questions	3	14	25
Follow-up Questions	1	10	17
Comments	0	0	1
Interventions			
Offered parent advice	0	1	2
Offered reassurance	0	0	0
Offered educational information	0	0	0
Offered a handout	0	0	3
Offered a mental Health referral	0	0	1
Offered a prescription	0	0	0
Ignored	0	0	0

VITA

Heather Applegate was accepted into the Department of Psychology at Louisiana State University in the Fall of 1995. She earned the master's degree in 1998 in clinical psychology and the Doctor of Philosophy degree in 2002. She is currently a faculty member in the Department of Psychiatry at the University of Mississippi Medical Center in Jackson, Mississippi.